

Natural Area Mapping and Inventory of Blood Root Valley

2011–2012 Survey

Prepared by the Greenbelt Natural Resources Team



NYC Parks

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Section I. Blood Root Valley Natural Area Mapping & Inventory

174.25 acres

Introduction

City of New York Parks & Recreation (DPR) manages one of the most extensive and varied parks systems of any city in the world. These 29,000 acres of city park property occupy about 15 percent of New York City's total area. **In addition to flagship parks such as Central Park and Prospect Park, the city's parklands include over 11,000 acres of natural areas.**

Until the 1980's, DPR was primarily concerned with developed landscapes and recreation facilities rather than natural areas. In the absence of a comprehensive management policy, these areas succumbed to invasive species, pollution and erosion.

In 1984, DPR established the Natural Resources Group (NRG) with a mandate to acquire, restore and manage natural areas in New York City. The wetlands, forests, meadows, and shorelines **under NRG's jurisdiction provide valuable habitat for hundreds of species, from rare wildflowers to endangered birds of prey.** In addition to the goals mentioned above, NRG serves as a **clearinghouse for technical research to aid in the protection and restoration of the city's natural resources.**

While this site's name may hold a macabre intrigue, it actually refers to the bloodroot plants (*Sanguinaria canadensis*) that thrive throughout the property. A member of the Poppy family (*Papveraceae*), the bloodroot is an early spring flower whose name recalls the deep red color of its sap. The plant grows best in moist, well-drained soils that are slightly acidic. For approximately one week, sometime between March and May, it produces a white flower blossom. The petals of the flower, usually between 7 and 12 in number, are so delicate that the blossoms often last only a day or two before a strong wind or a heavy spring shower destroys them. Other names for the plant include coon root, snakebite, sweet slumber, red root, corn root, tumeric, and tetterwort.

Over the centuries, bloodroot has proven to be an incredibly useful plant. Its abundant juice is such **a potent dye that Native Americans used it for war paint. They also used the plant's juice to dye** baskets and to decorate weapons, tools, and clothing. European colonists were quick to follow suit, and they used the plant to dye cloth, particularly wool, which is notoriously hard-to-dye.

Use of the bloodroot was not limited to dyeing; it extended to medicine as well. Medicine men in various Native American tribes used the plant to treat ulcers and ringworm. In the 19th century, London physicians who learned of this practice began using bloodroot, in conjunction with other chemicals, to treat skin cancers. By the end of the 19th century, this treatment had been discontinued, but since the 1960s, other doctors in Europe and America have begun to use bloodroot to treat minor cancers of the nose and ear.

Even more recently, dentists have "discovered" bloodroot. In 1983, Vipont Laboratories (now known as Atrix Laboratories), located in Fort Collins, Colorado began marketing "Viadent" toothpaste and mouth rinse, both of which contained an extract of bloodroot said to be excellent for reducing the growth of plaque. The American Dental Association (ADA) has hailed the extract, called sanguinarine, as a promising plaque-fighter. Although its ultimate use remains to be **determined, at least one dentist has noted that the bloodroot extract is "the best thing that's**

happened since fluoride. What fluoride has done in fighting tooth decay, this material will do in **preventing gum disease.**”

Bloodroot Valley Park has the only wild population of this plant in all of Staten Island, and it also is home to other varieties of plant and animal life. The park is covered with natural vegetation comprised of mature forests, shrub thickets, open woodlands, old fields, meadows, and grasslands. Aside from the bloodroot, several rare wildflowers, including the blue cohosh (*Caulophyllum thalictroides*), Virginia waterleaf (*Hyprophyllum virginicum*), and sweet cicely (*Myrrhis odorata*) can be found here. The area also supports hundreds of animal species and is used by several endangered or threatened bird species including the peregrine falcon (*Falco peregrinus*) and red-shouldered hawk (*Buteo lineatus*). It is one of only three sites in New York State inhabited by the arogos skipper (*Atrytone arogos*), a small butterfly listed by the New York State Natural Heritage Program as a rare element worthy of protection.

Kettle holes, steep hills, and large boulders show that the area was covered by ice 50,000 years ago, **during the most recent Ice Age. The variety of soils deposited during the glacier’s passage now allow** a diversity of plant and animal species to inhabit the region, and a variety of migratory birds to use the park as a resting place.

Bounded by Forest Hill Road, Eastman Avenue, and Manor Road, the City gave Parks this property in 1994. Bloodroot Valley Park is part of the Greenbelt, the largest subsystem of parks located in New York City. Established in 1984 and covering nearly 3,000 acres in central Staten Island, the Greenbelt is home to a variety of plant and animal life, as well as roughly 35 miles of nature trails. Other parks in the system include High Rock Park, Greenbelt Native Plant Nursery, the William T. Davis Wildlife Refuge, LaTourette Park, and Willowbrook Park. The Greenbelt Conservancy, Inc., founded in 1989, helps Parks to protect and care for the Greenbelt, sponsoring weekend nature walks and other environmental education programs and festivals.

The Greenbelt Natural Resources Team (GNRT) oversees the development and implementation of ecologically based management practices throughout Blood Root Valley and the entire Staten Island Greenbelt to preserve the environmental integrity of the natural parkland. In 2011 and 2012, to continue addressing the natural resource management and restoration needs of the Greenbelt, an inventory of Blood Root Valley was conducted by GNRT with the assistance of a New York State Department of Environmental Conservation Urban and Community Forestry Grant and a Long Island Invasive Species Management Area grant. GNRT utilized entitiation, a process of identifying and describing ecologically distinct plant communities, using aerial photographs and field reconnaissance. The plant communities were delineated into entitiation units, based on cover type, understory structure, species composition and topography. Evidence of historical use, current use, environmental disturbance and additional notes were also recorded for each unit. Entitiation of Blood Root Valley resulted in maps and a database that can be used to locate valuable and threatened areas, plan invasive species management, track future restoration efforts and indicate possible capital improvement projects in and around the park. The maps and database also serve as a baseline for measuring change over time. Both maps and a report from the database are included in this report.

Entitation

Entitation is a type of plant community inventory well suited to the patchy environments often found in urban areas. Originally designed for European landscapes, the system was revised by **NRG in 1985 for use in New York City's urban parklands.** **NRG has used entitation widely and successfully to facilitate acquisition and restoration decisions.** Put simply, entitation is a process of **breaking up a park into manageable parts called "entities" or "entitation units."** Entitation units are defined using a weighted list of criteria. Distinction is based on:

- Cover type (e.g. closed forest, vineland, scrub)
- Canopy species composition
- Understory type (e.g. herbs, vines, shrubs),
- Understory species composition.
- Additional factors that define entitation units, such as topography and soil condition (e.g. wet, moist, dry) are recorded.

To prepare for fieldwork, mapping technicians examine aerial photographs and delineate areas of similar cover. The mapping staff uses the aerial information to create a strategy for delineating entitation units in the area. In the field, boundaries are identified as described above. For each unit, staff records the data listed above, as well as current uses, environmental disturbances, historical indicators, community stability, and comments.

In Blood Root Valley, staff identified 299 discrete vegetation units in the 174.25 acres. To date, Blood Root Valley, **Reed's Basket Willow Swamp, High Rock Park,** Willowbrook Park and Deere Park have completed entitation inventories in the Greenbelt. High Rock Park entitation units are 1 to 60, Willowbrook Park entitation units are 61 to 240, Deere Park entitation units are 241 to 266, **Reed's Basket Willow Swamp** entitation units 267 to 369 and Blood Root Valley begins with unit 370 and ends with unit 668.

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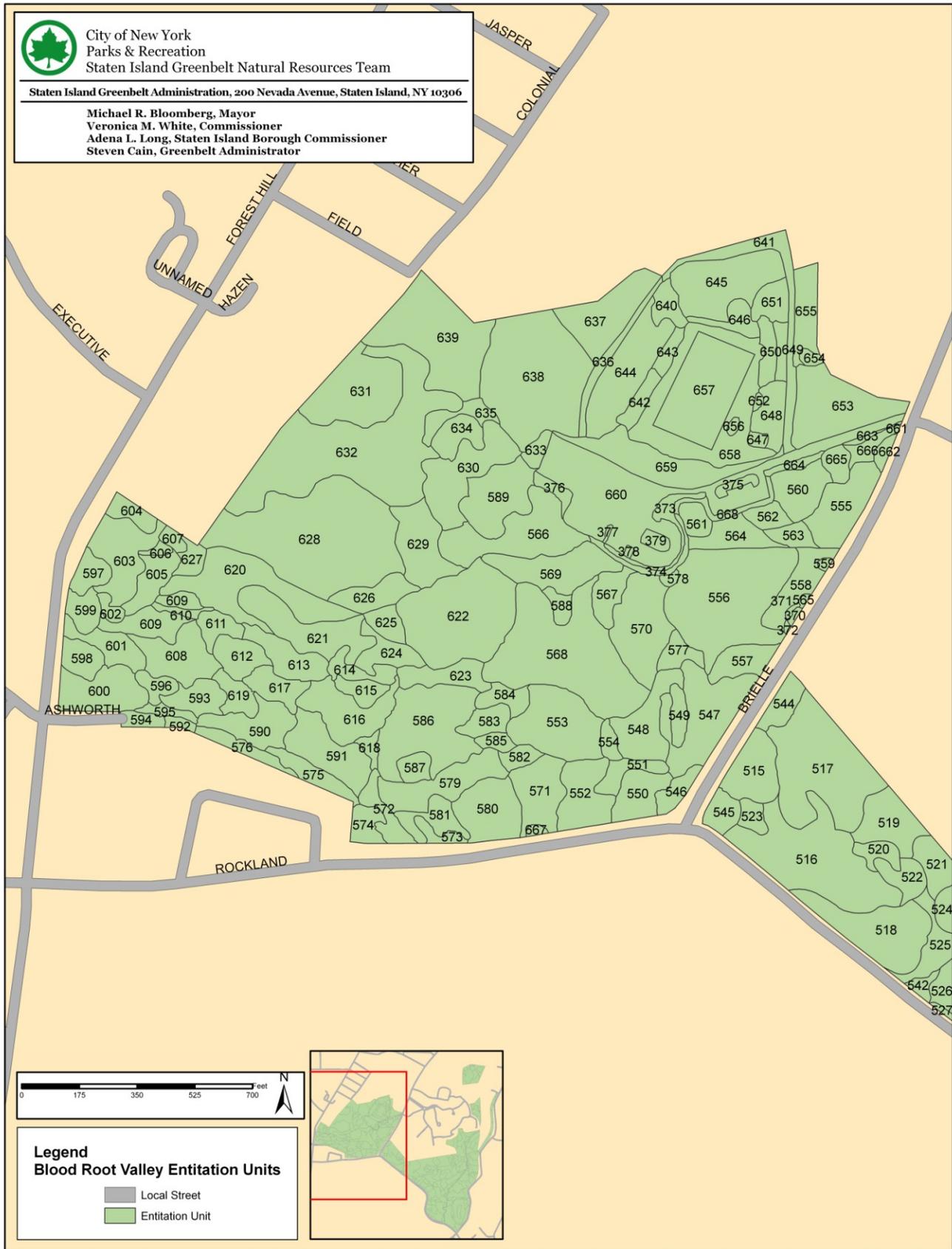
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Parks & Recreation
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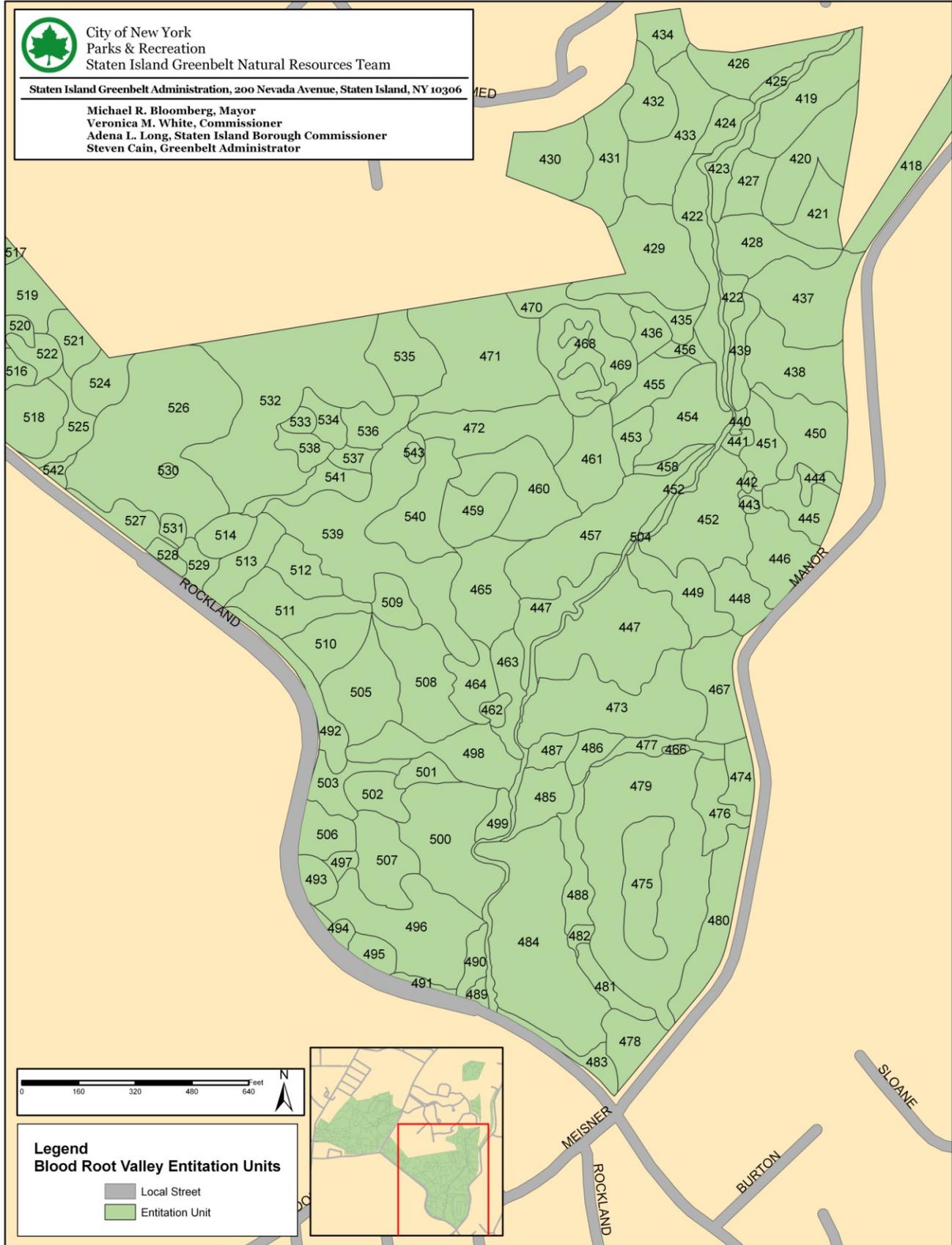




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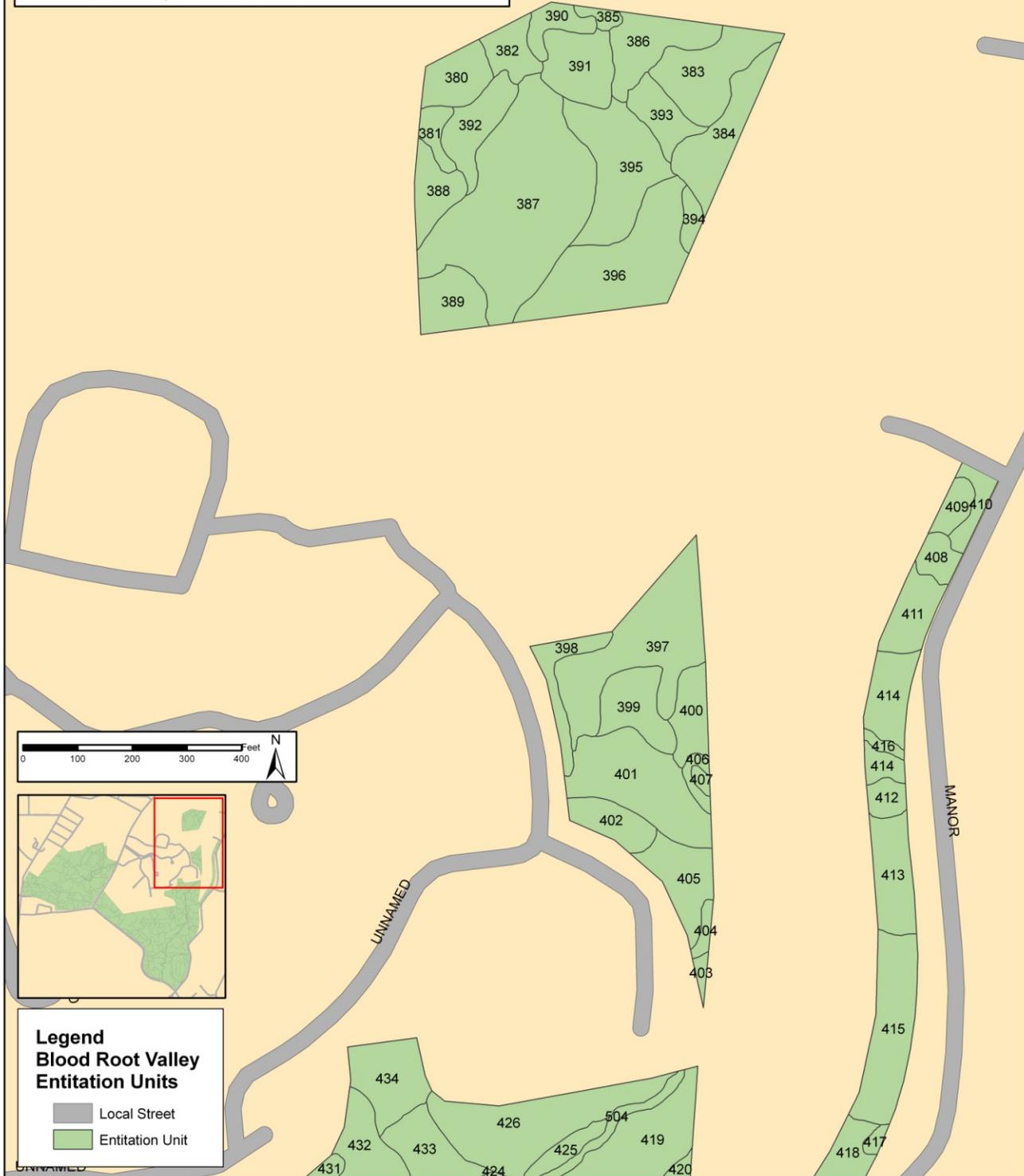




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Section III. Blood Root Valley Unit Descriptions, Surveyed 2011-2012

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 370 **Classification** IVA3a2 **Management Concerns**
Acreage: 0.03 Is species composition changing? No Invasive Sp.
Date: 06/14/2011 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|-------------------|---------------|---------------|-------------------|----------------|---------------------|
| Herbaceous | grass spp. | <5' | No | | Vehicle access | Soil compaction |
| Deciduous | mugwort | <5' | Yes | | | Trash |
| Geophytes | Queen Anne's lace | <5' | Yes | | | |
| Dry | | | | | | |
| Slope | | | | | | |

Comments:

This is a small herbaceous community on the west side of Brielle Avenue. It is dominated by grasses, mugwort and Queen Anne's lace.

Unit: 371 **Classification** IIB2a6 **Management Concerns**
Acreage: 0.02 Is species composition changing? No Invasive Sp.
Date: 06/14/2011 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | Japanese honeysuckle | <5' | Yes | | | Trash |
| Deciduous | black locust | 5'-30' | Yes | | | |
| Lianas | poison ivy | <5' | No | | | |
| Dry | mugwort | <5' | Yes | | | |
| Slope | | | | | | |

Comments:

This is a small woodland on the west side of Brielle Avenue, south of the Recreation Center entrance road. There are a few black locust in the 5-30' range and the understory is a combination of mugwort, poison ivy and Japanese honeysuckle.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 372 **Classification** III B1a **Management Concerns**
Acreage: 0.01 Is species composition changing? No
Date: 06/14/2011 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Scrub | sassafras | 5'-30' | No | | | |
| Deciduous | poison ivy | <5' | No | | | |
| Lianas | bayberry | 5'-30' | No | | | |
| Dry Slope | grass spp. | <5' | No | | | |

Comments:

This is a small scrubland on the west side of Brielle Avenue, south of the Recreation Center entrance. Sassafras is the dominant tree species and the understory is comprised of poison ivy, bayberry and grasses.

Unit: 373 **Classification** IVA2f **Management Concerns**
Acreage: 0.22 Is species composition changing? No
Date: 06/14/2011 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|-----------------|---------------|---------------|-------------------|--------------|---------------------|
| Herbaceous | grass spp. | <5' | No | Road | Foot traffic | |
| Deciduous | clover spp. | <5' | Yes | Exotic planting | | |
| Hemicryptophytes | common plantain | <5' | Yes | | | |
| Moist Level | dandelion | <5' | Yes | | | |

Comments:

This unit is an herbaceous unit that is a lawn. It parallels to the road that enters the lower parking lot of the Recreation Center. There are several black light fixtures located within this unit. Other species present include mugwort and eastern redbud.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 374 **Classification** IVA3a5 **Management Concerns**
Acreage: 0.15 Is species composition changing? No Invasive Sp.
Date: 06/14/2011 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------|---------------|---------------|-------------------|--------------|---------------------|
| Herbaceous | mugwort | <5' | Yes | Restoration | Foot traffic | |
| Deciduous | black locust | 5'-30' | Yes | | | |
| Hemicryptophytes | redbud | 5'-30' | No | | | |
| Moist | grass spp. | <5' | No | | | |
| Level | red clover | <5' | Yes | | | |
| | grey birch | <5' & 5-30' | No | | | |

Comments:

This is an herbaceous unit. It is predominantly mugwort. It is adjacent to the lower parking lot from the crematorium to the basketball courts. Trees from 2007 PlaNYC million trees restoration project are still present. Other species include smooth sumac, red maple, deertongue grass, red oak, tulip poplar, sycamore, grape species, common plantain, St. Johns wort, rough fruited cinquefoil, black walnut, American elm, swamp white oak, oxeye daisy, dame's rocket, deptford pink, red clover, birdsfoot trefoil, nightflowering catchfly, Phragmites, Japanese knotweed and oriental bittersweet.

Unit: 375 **Classification** IVA3a5 **Management Concerns**
Acreage: 0.09 Is species composition changing? No Invasive Sp.
Date: 06/14/2011 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|------------------|---------------|---------------|-------------------|--------------|---------------------|
| Herbaceous | grass spp. | <5' | No | Exotic planting | Foot traffic | |
| Deciduous | clover spp. | <5' | Yes | Road | | |
| Hemicryptophytes | mugwort | <5' | Yes | | | |
| Moist | London planetree | 5'-30' | Yes | | | |
| Slope | common plantain | <5' | Yes | | | |

Comments:

This is a lawn. It is adjacent to the upper parking lot of the Recreation Center. There is a bench in the unit along with five London Planetrees. There is an asphalt walkway in the unit.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 376 **Classification** IVA35 **Management Concerns**
Acreage: 0.12 Is species composition changing? No Invasive Sp.
Date: 06/14/2011 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------------|---------------|---------------|-------------------|--------------|---------------------|
| Herbaceous | mugwort | <5' | Yes | Restoration | Foot traffic | |
| Deciduous | black locust | 5'-30' | Yes | Landfill | | |
| Hemicryptophytes | Japanese honeysuckle | <5' | Yes | | | |
| Moist Level | goldenrod | <5' | No | | | |

Comments:

This is an herbaceous unit, south of the tennis and basketball courts. There is a desire foot path. Other species include mullein, fleabane, red maple, black walnut, pin oak, red oak, swamp white oak, tulip poplar, grey birch, sycamore, poison ivy, multiflora rose, porcelainberry and Phragmites.

Unit: 377 **Classification** IIIA1 **Management Concerns**
Acreage: 0.02 Is species composition changing? No
Date: 06/14/2011 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Scrub | grass spp. | <5' | No | Restoration | Sports | |
| Deciduous | common plantain | <5' | Yes | Fence | | |
| Hemicryptophytes | clover spp. | <5' | Yes | | | |
| Moist Level | sweet pepperbush | <5' | No | | | |
| | magnolia spp. | 5'-30' | No | | | |
| | sweetgum | 5'-30' | No | | | |

Comments:

This is a scrub that is adjacent to the bottom parking lot. It is also adjacent to the basketball courts and the storage shed. Other species include black locust.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 378 **Classification** IVA2a **Management Concerns**
Acreage: 0.02 Is species composition changing? No
Date: 06/14/2011 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|-----------------|---------------|---------------|-------------------|-------------|---------------------|
| Scrub | common plantain | <5' | No | | Restoration | |
| Deciduous | clover spp. | <5' | Yes | | Hedgerow | |
| Hemicryptophytes | grass spp. | <5' | No | | | |
| Moist | arrowwood | 5'-30' | No | | | |
| Level | | | | | | |

Comments:

This is a scrub adjacent to the lower parking lot. There is a stop sign in the unit. One pin oak is present in the unit. Other species include vendeline, black locust and mugwort.

Unit: 379 **Classification** IVA3a5 **Management Concerns**
Acreage: 0.09 Is species composition changing? No
Date: 06/14/2011 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|-------------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous | grass spp. | <5' | No | | | |
| Deciduous | Virginia knotweed | <5' | No | | | |
| Hemicryptophytes | ragweed | <5' | No | | | |
| Moist | clover spp. | <5' | Yes | | | |
| Level | pin oak | 5'-30' | No | | | |

Comments:

This is an herbaceous unit in the middle of the lower parking lot. Other species present include mullein, dandelion, mugwort and burdock.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 380 **Classification** IB2a3 **Management Concerns**
Acreage: 0.26 Is species composition changing? No Deer Impact
Date: 05/23/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | bigtooth aspen | <5' - >30' | No | | | Dumping |
| Deciduous | sassafras | <5' - >30' | No | | | Trash |
| Hemicryptophytes | hay-scented fern | <5' | No | | | |
| Moist | poison ivy | <5' | No | | | |
| Level | carex spp. | <5' | No | | | |
| | black cherry | <5' | No | | | |

Comments:

This is a closed forest south of Wagner High School, east of the access road. It is primarily dominated by aspen and sassafras with little shrub understory. Other canopy species include black oak, blackgum and white oak. Other species present include Japanese honeysuckle, catbrier, goldenrod, Virginia creeper, Pennsylvania blackberry, field sorrel, grey birch, oriental bittersweet, steeplebush, winged sumac, multiflora rose, Solomon's seal species, dandelion, mugwort, Japanese stilt grass, deertongue, grass, sweet vernal grass, cinnamon fern, whorled yellow loosestrife, panicledleaf tick trefoil, arrowwood, Canada toadflax, cinquefoil and roundleaf pyrola. Regenerating species include white oak, black cherry, sassafras, sweetgum, red oak, red maple and ash species

Unit: 381 **Classification** IIB1a **Management Concerns**
Acreage: 0.11 Is species composition changing? No Herbivory
Date: 05/29/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|-------------------|---------------|---------------|-------------------|--------------|---------------------|
| Scrub | winged sumac | <5' & 5-30' | No | | Foot traffic | Dumping |
| Deciduous | gray birch | <5' & 5-30' | No | | | Trash |
| Chamaephytes | cool season grass | <5' | No | | | |
| Moist | hardhack spiraea | <5' | No | | | |
| Level | sweetgum | <5' & 5-30' | No | | | |
| | goldenrod | <5' | No | | | |

Comments:

This is a scrubland dominated by winged sumac. There are several grey birch in the unit. There is also a lot of sweetgum. The ground cover is mostly cool season grass with a few regenerating species. Other species include Canada Mayflower, moss species, cool season grass, goldenrod, trailing dewberry, lowbush blueberry, bayberry, poison ivy, huckleberry, steeplebush, black cherry, Pennsylvania blackberry, highbush blueberry, dandelion, catbrier, red maple, arrowwood, Carex species, bigtooth aspen, broomsedge, Japanese honeysuckle, porcelainberry, Virginia creeper, european alder buckthorn, willow oak and smooth sumac. Regenerating species include sassafras, black cherry, sweetgum, red oak and red maple.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 382 **Classification** IIB1a **Management Concerns**
Acreage: 0.19 Is species composition changing? No Herbivory
Date: 05/29/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|--------------------|---------------|---------------|-------------------|--------------|---------------------|
| Scrub | winged sumac | <5' & 5-30' | No | | Foot traffic | |
| Deciduous | sweet vernal grass | <5' | No | | | Trash |
| Chamaephytes | goldenrod | <5' | No | | | |
| Moist Level | gray birch | >30' & 5-30' | No | | | |

Comments:

This is a scrubland on the northwestern edge of the park boundry near Wagner High School, primarily dominated by winged sumac. It also has a lot of goldenrod and cool season grasses. There are a couple of canopy trees (bigtooth aspen and sweetgum). Other species include sassafras, black cherry, sheep's sorrel, common path rush, deertongue grass, mugwort, poison ivy, dandelion, broom sedge, steeplebush, Pennsylvania blackberry, multiflora rose, catbrier, trailing dewberry, cool season grass, moss, arrowwood, and Carex species Regenerating species include red maple, sassafras, grey birch, sweetgum, black cherry, red oak, and bigtooth aspen.

Unit: 383 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.49 Is species composition changing? No
Date: 05/29/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------|---------------|---------------|-------------------|--------------|---------------------|
| Woodland | sweetgum | <5' & 5-30' | No | | Foot traffic | Trash |
| Deciduous | sassafras | <5' & 5-30' | No | | | Dumping |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist Undulating | | | | | | |

Comments:

This is a woodland starting at the northeast corner of the park boundry near Wagner High School and extending southwest into the park. It is primarily dominated by sweetgum and sassafras with a few oaks mixed in. There is a lot of tree regeneration (sassafras, sweetgum, black cherry, red maple, northern red oak). Spicebush and arrowwood, dominate the understory. There is a small stream in the southern edge of the unit. Other species include highbush blueberry, moss, cool season grass, New York fern, lowbush blueberry, sensitive fern, snakeroot, American chestnut, Canada mayflower, Japanese honeysuckle, trailing dewberry, goldenrod, round-leaf pyrola, catbrier, scarlet oak, Aralia species, multiflora rose, whorled yellow loosestrife, panicledleaf tick trefoil, arrowwood, poison ivy, cinquefoil, oriental bittersweet, Virginia creeper, grey birch, porcelainberry, round-leaf dogwood, cinnamon fern and jewelweed.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 384 **Classification** IB2a2 **Management Concerns**
Acreage: 0.43 Is species composition changing? No Herbivory
Date: 05/29/2012 Is community structure changing? No Ecol. Interact/Ref. Site

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|--------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | Foot traffic | Trash |
| Deciduous | sassafras | <5' - >30' | No | | | Dumping |
| Chamaephytes | bigtooth aspen | <5' & >30' | No | | | |
| Moist | arrow wood | <5' & 5-30' | No | | | |
| Undulating | white oak | <5' - >30' | No | | | |
| | poison ivy | <5' - >30' | No | | | |

Comments:

This is a small closed forest unit that borders the park boundary east of the Jewish Community Center parking lot. The canopy is mostly sweetgum and sassafras with some bigtooth aspen intermixed, and the understory is thick with arrowwood. Other species include deertongue grass, goldenrod, Canada mayflower, trailing dewberry, cool season grass, spicebush, Japanese honeysuckle, porcelainberry, Virginia creeper, poison ivy, mapleleaf viburnum, American beech, white mulberry, multiflora rose, oriental bittersweet, black birch, blackgum, pin oak, hayscented fern, dock species, black haw, mockernut hickory and sedge species. Regenerating species include red maple, sweetgum, white oak, scarlet oak, red oak, black cherry and sassafras.

Unit: 385 **Classification** IVB1c **Management Concerns**
Acreage: 0.05 Is species composition changing? No
Date: 05/30/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous | sensitive fern | <5' | No | | | |
| Deciduous | arrowwood | <5' | No | | | |
| Hemicryptophytes | jewelweed | <5' & 5-30' | No | | | |
| Wet Level | | | | | | |

Comments:

This is a wetland on the north border of the park boundry near Wagner High School. Its dominated by sensitive fern with a few large arrowwood shrubs. There are a few bigtooth aspen growing through the ferns. This unit is next to a large patch of Japanese stiltgrass. Other species include halberd-leaved tearthumb, jewelweed, goldenrod, common elderberry, winged sumac, dandelion, Rubus species, sweetgum, multiflora rose, catbrier, Virginia creeper, Japanese stiltgrass and cinnamon fern.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|------------------|------------|----------------------------------|-------|--|-----------------------------------|
| Unit: | 386 | Classification | IB2a3 | | <u>Management Concerns</u> |
| Acreeage: | 0.38 | Is species composition changing? | No | | Herbivory |
| Date: | 05/30/2012 | Is community structure changing? | No | | Deer Impact |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | bigtooth aspen | >30' | No | | | Dumping |
| Deciduous | sassafras | <5' - >30' | No | | | |
| Hemicryptophytes | mayflower | <5' | No | | | |
| Moist | catbrier | <5' & 5-30' | No | | | |
| Slope | | | | | | |

Comments:

This is a closed forest unit that starts in the north eastern border of the park boundary near Wagner High School and extends south into the park. Bigtooth aspen dominates the canopy. Canada mayflower, northern lady fern and cinnamon fern dominate the understory. There is a stream that runs through the unit, and vegetation around the stream is more dense. Both sides of the stream slope down towards the stream. Other species include spicebush, red oak, white oak, red maple, sweetgum, pin oak, jewelweed, poison ivy, Virginia creeper, goldenrod, sensitive fern, black gum, arrowwood, highbush blueberry, cool season grass, round-leaf pyrola, whorled yellow loosestrife, cinquefoil, enchanter's nightshade, oriental bittersweet, trailing dewberry, false Solomon's seal, Japanese honeysuckle, halberd-leaved tearthumb, northern lady fern, Japanese stiltgrass and one flowered broomrape. Regenerating species include black gum, sassafras, red maple, sweetgum, red oak, American beech, white oak and black cherry.

| | | | | | |
|------------------|------------|----------------------------------|--------|--|-----------------------------------|
| Unit: | 387 | Classification | IIB2a6 | | <u>Management Concerns</u> |
| Acreeage: | 1.80 | Is species composition changing? | No | | Herbivory |
| Date: | 05/30/2012 | Is community structure changing? | Yes | | |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | bigtooth aspen | >30' | No | | | Trash |
| Deciduous | sassafras | <5' - >30' | No | | | Dumping |
| Lianas | catbrier | <5' - >30' | No | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This unit is a woodland that starts on the southwest border of the polygon and extends northeast into the center of the polygon. Catbrier is dominating the understory and the unit may be transitioning into a vineland. There is some dumping and trash in the unit, the dumping seems to be a result of forest clearing as well as some hospital related items. Other species include northern lady fern, goldenrod, blackhaw, cool season grass, trailing dewberry, sweetgum, arrowwood, grey birch, poison ivy, Virginia creeper, red oak, red maple, tulip poplar, whorled yellow loosestrife, spicebush, grape species, ash species, scarlet oak, multiflora rose, false Solomon's seal, halberd-leaved tearthumb, path rush, winged sumac, oriental bittersweet, Aralia species, deertongue grass, porcelainberry, Japanese stiltgrass and jewelweed.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 388 **Classification** IB2a1 **Management Concerns**
Acreage: 0.23 Is species composition changing? No Herbivory
Date: 05/30/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | Trash |
| Deciduous | blackgum | <5' & 5-30' | No | | | Dumping |
| Phanerophytes | catbrier | <5' & 5-30' | No | | | |
| Moist Level | bigtooth aspen | <5' & 5-30' | No | | | |

Comments:

This is a small closed forest unit on the western edge of the park boundry near Wagner High School. There are few shrubs in the understory, but a lot of regeneration is also occurring. This unit is next to a very large vineland of catbrier that could easily spread into this unit. Other canopy species present include red oak and sassafras. Other species present include trailing dewberry, Canada mayflower, highbush blueberry, lowbush blueberry, poison ivy, Virginia creeper, false Solomon's seal, tulip poplar, black birch, arrowwood, cool season grass, multiflora rose, goldenrod, red maple, white oak, panicleleaf tick trefoil, black cherry, red oak, winged sumac, oriental bittersweet, steeplebush, common sheep sorrel and cinquefoil.

Unit: 389 **Classification** IB2a3 **Management Concerns**
Acreage: 0.29 Is species composition changing? No Herbivory
Date: 05/30/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | tulip poplar | <5' - >30' | No | | | Trash |
| Deciduous | northern lady fern | <5' | No | | | Dumping |
| Hemicryptophytes | red oak | >30' | No | | | |
| Moist | catbrier | <5' & 5-30' | No | | | |
| Slope | sassafras | <5' & 5-30' | No | | | |

Comments:

This is a small closed forest unit on the southwest corner of the park boundry near Wagner High School. There is a lot of tulip poplar and oak in the canopy. There is a lot of northern lady fern and catbrier in the understory. There are only a few shrub species at the northern edge of the unit, and catbrier could be taking over. Other species include moss, red maple, black birch, Canada mayflower, sweetgum, Japanese angelica-tree, arrowwood, Virginia creeper, poison ivy, dogwood species, goldenrod, false Solomon's seal, mockernut hickory, cinquefoil, mapleleaf viburnum, spicebush, woodland fern, Japanese stiltgrass and porcelainberry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 390 **Classification** IIB2a4 **Management Concerns**
Acreage: 0.15 Is species composition changing? No
Date: 05/31/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|---------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sweetgum | <5' & >30' | No | | | Dumping |
| Deciduous | Japanese stiltgrass | <5' | Yes | | | Trash |
| Geophytes | | | | | | |
| Moist | | | | | | |
| Level | | | | | | |

Comments:

This unit is a woodland on the northern border of the park boundry near Wagner High School. Sweetgum dominates the canopy and Japanese stiltgrass completely dominates the understory. Other species include multiflora rose, oriental bittersweet, trailing dewberry, poison ivy, goldenrod, spicebush, red maple, arrowwood, cherry species, common elderberry, cinnamon fern, sensitive fern, fern species and grey birch.

Unit: 391 **Classification** VIIC **Management Concerns**
Acreage: 0.36 Is species composition changing? No
Date: 05/31/2012 Is community structure changing? Yes
 Herbivory
 Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | catbrier | <5' & >30' | No | | | Trash |
| Deciduous | Japanese honeysuckle | <5' & 5-30' | No | | | Dumping |
| Lianas | bigtooth aspen | >30' | No | | | |
| Moist | sweetgum | >30' & 5-30' | No | | | |
| Level | | | | | | |

Comments:

This unit is a vineland just south of the northern border of the park boundry near Wagner High School. There are a lot of bigtooth aspen in the canopy and a few sweetgum, but the understory is predominantly catbrier and Japanese honeysuckle. Other species present are black gum, red oak, Japanese stiltgrass, red maple, spicebush, Virginia creeper, Rubus species, multiflora rose, winged sumac and slippery elm.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 392 **Classification** IIB2a3
Acreage: 0.30 Is species composition changing? No
Date: 05/31/2012 Is community structure changing? No

Management Concerns

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | sweetgum | <5' - >30' | No | | | Dumping |
| Deciduous | grey birch | <5' & 5-30' | No | | | Trash |
| Hemicryptophytes | bigtooth aspen | >30' | No | | | |
| Moist | goldenrod | <5' | No | | | |
| Level | cool season grass | <5' | No | | | |

Comments:

This unit is a woodland that borders catbrier vinelands. It is south of the northeast corner of the park boundry near Wagner High School. Sweetgum is the dominant canopy species, and there is a lot of tree regeneration. Other species include red maple, steeplebush, arrowwood, cool season grass, grey birch, winged sumac, dandelion, black cherry, poison ivy, red oak, Japanese honeysuckle, catbrier, Virginia creeper, Japanese stiltgrass, trailing dewberry, sassafras, cinquefoil, blackgum, whorled yellow loosestrife, tulip poplar, highbush blueberry, cinnamon fern, American chestnut, hayscented fern, jewelweed, bigtooth aspen, oriental bittersweet, Canada mayflower, multiflora rose, deertongue grass and common sheep sorrel. Regenerating species include sweetgum, tulip poplar, red oak, black cherry, red maple, grey birch and sassafras.

Unit: 393 **Classification** IB2a2
Acreage: 0.22 Is species composition changing? No
Date: 05/31/2012 Is community structure changing? Yes

Management Concerns

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | red maple | <5' & >30' | No | | | Dumping |
| Deciduous | catbrier | <5' - >30' | No | | | Trash |
| Chamaephytes | blackgum | <5' & >30' | No | | | |
| Wet | arrowwood | <5' & 5-30' | No | | | |
| Level | cinnamon fern | <5' | No | | | |

Comments:

This is a closed forest unit with a stream running through it. The stream is very rust colored; it empties into a small Phragmites unit. Catbrier seems to be moving in and taking over in this unit. Other species include jewelweed, spicebush, cool season grass, moss, Canada mayflower, sweetgum, poison ivy, tulip poplar, porcelainberry, goldenrod, wild sarsaparilla, red oak, swamp white oak, Phragmites, highbush blueberry and multiflora rose.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 394 **Classification** IVB1c **Management Concerns**
Acreage: 0.08 Is species composition changing? No Invasive Sp.
Date: 05/31/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous | Phragmites | <5' & 5-30' | Yes | | | Trash |
| Deciduous | jewelweed | <5' | No | | | |
| Geophytes | | | | | | |
| Surface water | | | | | | |
| Level | | | | | | |

Comments:

This is a small herbaceous unit on the eastern edge of the park boundry near Wagner High School. It is all Phragmites and jewelweed. The rusty stream empties into this area. Some canopy species on the edge include red maple, red oak, and grey birch. Other species on the edge include spicebush, hayscented fern and sensitive fern.

Unit: 395 **Classification** IB2a6 **Management Concerns**
Acreage: 0.69 Is species composition changing? No Invasive Sp.
Date: 05/31/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | catbrier | <5' - >30' | No | | | Trash |
| Deciduous | bigtooth aspen | >30' & 5-30' | No | | | |
| Lianas | red maple | <5' - >30' | | | | |
| Moist | | | | | | |
| Level | | | | | | |

Comments:

This is a large closed forest unit with a lot of bigtooth aspen, but catbrier is taking over the understory. It is extremely dense. Other species include red oak, red maple, hickory species, northern lady fern, cinnamon fern, hayscented fern, goldenrod, Canada mayflower, Japanese angelica, trailing dewberry, black cherry, porcelainberry, blackgum, sweetgum, cool season grass, arrowwood, poison ivy, Virginia creeper, sassafra, aster species and tree of heaven.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 396 **Classification** IB2a6 **Management Concerns**
Acreage: 0.92 Is species composition changing? No
Date: 05/31/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | catbrier | <5' - >30' | No | | | Trash |
| Deciduous | red oak | <5' & 5-30' | No | | | |
| Lianas | | | | | | |
| Moist | | | | | | |
| Level | | | | | | |

Comments:

This is a large, young closed forest. Catbrier is dominant in the understory. It is extremely dense. The oak and other tree species are roughly 15-20 feet tall. Other young canopy trees are mockernut hickory, blackgum, sweetgum, black cherry and white oak. Other species in the understory include Canada mayflower, cinnamon fern, northern lady fern, porcelainberry, Rubus species, Japanese stiltgrass, round-leaf pyrola, Virginia creeper, cool season grass, sassafras, spicebush, arrowwood, poison ivy, goldenrod, tulip poplar and oriental bittersweet.

Unit: 397 **Classification** IB2a2 **Management Concerns**
Acreage: 0.95 Is species composition changing? No
Date: 06/01/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red oak | <5' & >30' | No | Other | | Trash |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | American beech | <5' - >30' | No | | | |
| Moist | Virginia creeper | <5' | No | | | |
| Slope | mapleleaf viburnum | <5' | No | | | |

Comments:

This is a closed forest unit starting at the north end of the park boundry south of the Jewish Community Center and extending south to about the midpoint along the west edge near the old hospital building. At the north end there are several canopy trees with old stone walls encircling them, about 2 feet tall (Historical Indicator=Other). There is some landscaping that has been done around some of the present trees. The canopy is mostly red oak and American beech, however other tree species are also present in the canopy including sweetgum, Norway maple, white oak, tulip poplar, black birch, red maple, sugar maple, and mockernut hickory. The understory is dense with spicebush and a lot of maple-leaf viburnum, but other species are also present here including garlic mustard, jewelweed, Virginia creeper, oriental bittersweet, Jack in the pulpit, mapleleaf viburnum, arrowwood, Canada mayflower, American pokeweed, Japanese angelica tree, goldenrod species, poison ivy, multiflora rose, white oak, Japanese honeysuckle, northern lady fern, false Solomon's seal, common elderberry, beechdrops and rush species.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 398 **Classification** IB2a1 **Management Concerns**
Acreage: 0.20 Is species composition changing? No Invasive Sp.
Date: 06/01/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|-----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | tulip poplar | >30' & 5-30' | No | | | Trash |
| Deciduous | tree of heaven | <5' - >30' | Yes | | | Dumping |
| Phanerophytes | spicebush | <5' & 5-30' | No | | | Erosion |
| Moist | garlic mustard | <5' | Yes | | | |
| Slope | multiflora rose | <5' | Yes | | | |
| | Norway maple | <5' - >30' | Yes | | | |

Comments:

This is a closed forest edge unit that is very disturbed. It borders one of the old hospital buildings and the western edge of the park boundry south of the Jewish Community Center near Seaview. It is a steep slope with erosion and dumping. Canopy species are tulip poplar, sweetgum, Norway maple, tree of heaven and red oak. There is a lot of spicebush in the understory, but also a lot of invasives. Other species include oriental bittersweet, garlic mustard, spicebush, multiflora rose, Virginia creeper, Japanese honeysuckle, English ivy, jewelweed, poison ivy, winged euonymus, Jack in the pulpit, Japanese barberry, slippery elm, Solomon's seal, cluster snakeroot, longstyled sweet cicely and cherry species.

Unit: 399 **Classification** IB2a2 **Management Concerns**
Acreage: 0.33 Is species composition changing? No
Date: 06/01/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | Trash |
| Deciduous | American beech | <5' - >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | Virginia creeper | <5' | No | | | |
| Slope | mapleleaf viburnum | <5' | No | | | |

Comments:

This is a closed forest unit just northeast of the stream and west of Seaview. The canopy is primarily sweetgum and some American beech. Spicebush dominates the understory rather densely in most places. Other species include Jack in the pulpit, Virginia creeper, poison ivy, Mapleleaf viburnum, Japanese barberry, Canada mayflower, oriental bittersweet, Norway maple, northern red oak, Solomon's seal, Rubus species, beechdrops and northern lady fern.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 400 **Classification** IB2a1 **Management Concerns**
Acreage: 0.23 Is species composition changing? No Succession
Date: 06/01/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | American beech | <5' - >30' | No | | | |
| Deciduous | red oak | <5' & >30' | No | | | |
| Phanerophytes | mapleleaf vibernum | <5' | No | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a closed forest unit that is on the eastern border near the fence. The canopy is primarily American beech and red oak, but the understory is not dense with spicebush the way most of the surrounding units are. Instead, the understory is primarily beech regeneration. The unit also borders a stream. Other species include black birch, tulip poplar, sweetgum, Solomon's seal, Canada mayflower, winged euonymus, spicebush, Virginia creeper, New York fern, arrowwood, cinnamon fern, oriental bittersweet, lowbush blueberry and beechdrops.

Unit: 401 **Classification** IB2a2 **Management Concerns**
Acreage: 0.74 Is species composition changing? No
Date: 06/04/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | spicebush | <5' & 5-30' | No | | | Trash |
| Deciduous | red oak | <5' - >30' | No | | | |
| Chamaephytes | mapleleaf vibernum | <5' | No | | | |
| Moist | sweetgum | >30' | No | | | |
| Slope | American beech | <5' - >30' | No | | | |

Comments:

This is a large closed forest unit that borders a stream and the tulip poplar unit. The dominant canopy species are red oak, sweetgum, and American beech. The understory is thick with spicebush and maple leaf viburnum. There is one large canopy gap that is at the top of a culvert and invasives are taking over the understory in the gap. Other species include ash species, northern lady fern, garlic mustard, arrowwood, Japanese barberry, Canada mayflower, Virginia creeper, Norway maple, Solomon's seal, roundleaf pyrola, oriental bittersweet, poison ivy, burning bush, Jack-in-the-pulpit, ironwood, blackhaw and jewelweed.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 402 **Classification** IB2a2 **Management Concerns**
Acreage: 0.22 Is species composition changing? No Invasive Sp.
Date: 06/04/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red oak | >30' | No | | | Trash |
| Deciduous | Norway maple | <5' & >30' | Yes | | | Dumping |
| Chamaephytes | sweetgum | >30' | No | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a closed forest unit on the western edge of the park boundry south of the Jewish Community Center. It is dominated by Norway maple, which is rather young. There are also several red oaks in the canopy. Vegetation in the understory is sparse. There is some spicebush and a fair amount of Japanese honeysuckle. Other species include spicebush, jewelweed, Solomon's seal, multiflora rose, garlic mustard, Japanese honeysuckle, roundleaf pyrola, asters, white ash, Virginia creeper, American beech, hackberry, Japanese knotweed, oriental bittersweet and scarlet oak.

Unit: 403 **Classification** IVA3a5 **Management Concerns**
Acreage: 0.03 Is species composition changing? No Herbivory
Date: 06/04/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|---------------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous | stinging nettle | <5' | No | | | Trash |
| Deciduous | clustered snakeroot | <5' | No | | | |
| Hemicryptophytes | tree of heaven | <5' & 5-30' | Yes | | | |
| Moist | multiflora rose | <5' & 5-30' | Yes | | | |
| Slope | | | | | | |

Comments:

This is an herbaceous at the south end of the park boundry south of the Jewish Community Center. The stream runs through part of it. Stinging nettle is dominant, so is multiflora rose, Japanese honeysuckle and clustered snakeroot. There are a few canopy trees, specifically tree of heaven, Norway maple, and black locust. Other species include garlic mustard, blood root, Christmas fern, Virginia knotweed, trailing dewberry, clovers, smartweed, enchanter's night shade, spicebush, Solomon's seal, oriental bittersweet and tulip poplar.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 404 **Classification** IB2a3 **Management Concerns**
Acreage: 0.05 Is species composition changing? No Herbivory
Date: 06/03/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | stinging nettle | <5' | No | | | Trash |
| Deciduous | Norway maple | >30' & 5-30' | Yes | | | Erosion |
| Hemicytopytes | Virginia waterleaf | <5' | No | | | |
| Moist | tree of heaven | >30' | Yes | | | |
| Slope | | | | | | |

Comments:

This is a small closed forest that forms a steep stream bank, it is starting to erode. The canopy is mostly Norway maple and tree of heaven, and the understory is almost all herbaceous species. Other species include blood root, clustered snakeroot, sugar maple, red oak, asters, goldenrods, spicebush, Solomon's seal, blue cohosh, Carex, Virginia knotweed, multiflora rose, Canada mayflower, winged euonymus and Japanese barberry.

Unit: 405 **Classification** IB2a2 **Management Concerns**
Acreage: 0.33 Is species composition changing? No
Date: 06/06/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red oak | >30' | No | | | Dumping |
| Deciduous | sugar maple | <5' - >30' | No | | | Trash |
| Chamaephytes | black birch | <5' - >30' | No | | | |
| Moist | Virginia creeper | <5' | No | | | |
| Slope | mapleleaf viburnum | <5' | No | | | |
| | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a small closed forest unit. It is on the south end of the park boundry south of the Jewish Community Center, close to one of the old hospital buildings. It is a steep slope descending west to east down to the stream. A combination of red oak, sugar maple, and black birch dominate the canopy, but American beech, sweetgum, and Norway maple are also present. The understory is thin and mostly below 5'. There is a lot of bittersweet in some spots. Other species include roundleaf pyrola, Virginia creeper, Solomon's seal, American hazelnut, American strawberry bush, rush species, lowbush blueberry, highbush blueberry, Virginia knotweed, oriental bittersweet, mapleleaf viburnum, Northern spicebush, poison ivy, asters, multiflora rose, Japanese honeysuckle, Canada mayflower, sassafras, arrowwood, European privet, winged euonymus, trailing dewberry, cool season grass, hackberry and Christmas fern.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 406 **Classification** IVA3a5 **Management Concerns**
Acreage: 0.06 Is species composition changing? No
Date: 06/06/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Riparian Buffer | jewelweed | <5' | No | | | Trash |
| Deciduous | lady's thumb | <5' | No | | | |
| Hemicryptophytes | | | | | | |
| Surface water | | | | | | |
| Level | | | | | | |

Comments:

This unit is a stream. It flows from east to west, curving south within the park boundary. Canopy species extending over the stream include sweetgums, red maple, and American beech. Species on the stream bank include witch hazel, jewelweed, multiflora rose, lady's thumb, goldenrods, enchanter's nightshade, cinnamon fern, spicebush, garlic mustard and skunk cabbage. The stream has cobble as the dominant bed material, has a moderate entrenchment ratio, a moderate width/depth ratio, moderate sinuosity and is categorized as a B-3 stream by the Rosgen classification system.

Unit: 407 **Classification** IB2a1 **Management Concerns**
Acreage: 0.03 Is species composition changing? No
Date: 06/06/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' & >30' | No | | | |
| Deciduous | American beech | <5' - >30' | No | | | |
| Phanerophytes | black birch | <5' & 5-30' | No | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a small closed forest unit that is against the east edge of the park boundry south of the Jewish Community Center and surrounded by the stream on all other sides. The canopy is dominated by sweetgum but there are also a few young American beech trees, young black birch, and a few red oaks. There is one white oak sapling on the edge of the stream. There is a lot of American beech regeneration and birch regeneration. Other understory species include spicebush, mapleleaf viburnum, catbrier, lowbush blueberry, New York fern, highbush blueberry, partridge berry, Virginia creeper, arrowwood, poison ivy, Canada mayflower and winged euonymus.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 408 **Classification** IIB2a4 **Management Concerns**
Acreage: 0.12 Is species composition changing? No Invasive Sp.
Date: 06/06/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|---------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | Japanese stiltgrass | <5' | Yes | | | Trash |
| Deciduous | grass spp. | <5' | No | | | |
| Geophytes | sweetgum | <5' - >30' | No | | | |
| Surface water | red maple | >30' | No | | | |
| Level | lady's thumb | <5' | Yes | | | |

Comments:

This is a woodland unit with surface water at the edge at Manor road. The buffer at the road edge is a dense pile of porcelain berry and multiflora rose. Canopy species in the unit are sweetgum, red maple, American beech, and red oak. The species growing out of the mud are mostly Japanese stiltgrass and lady's thumb with some cool season grass and common arrowhead. Other species present include sedge species, sensitive fern, arrowwood, jewelweed, skunk cabbage, cinnamon fern, spicebush, poison ivy, Virginia creeper, highbush blueberry, goldenrods and Canada mayflower.

Unit: 409 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.11 Is species composition changing? No
Date: 06/06/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sweetgum | <5' & >30' | No | | | Trash |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | poison ivy | <5' - >30' | No | | | |
| Moist | arrowwood | <5' & 5-30' | No | | | |
| Level | highbush blueberry | <5' & 5-30' | No | | | |

Comments:

This is a small woodland unit just south of the Jewish Community Center and north of the wet woodland. Dominant canopy species are sweetgum and red maple. The understory is dense with spicebush, arrowwood, and highbush blueberry with a lot of poison ivy as well. Other species include oriental bittersweet, sweet pepperbush, Canada mayflower, cinnamon fern, winged euonymus, European privet, jewelweed and multiflora rose. Regenerating species include sweetgum, red oak and black cherry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 410 **Classification** IB2a2 **Management Concerns**
Acreage: 0.13 Is species composition changing? No Invasive Sp.
Date: 06/06/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | >30' & 5-30' | No | | | Trash |
| Deciduous | poison ivy | <5' - >30' | No | | | |
| Chamaephytes | | | | | | |
| Moist | | | | | | |
| Undulating | | | | | | |

Comments:

This is a closed forest on the edge of Manor road and the Jewish Community Center back driveway. It is extremely dense with poison ivy. Several canopy trees have been taken over entirely by poison ivy. Most of the remaining canopy trees are sweetgum and red maple. The shrub layer is primarily arrowwood, spicebush and winged euonymus. There are a few dense patches of invasives at the edge of Manor road, including mugwort, garlic mustard, oriental bittersweet and European privet. Other species include multiflora rose, Virginia creeper, Japanese honeysuckle, goldenrods, oriental bittersweet, Carex swanii, Canada mayflower, spicebush, red oak, American beech, sweet birch, mockernut hickory, sweetgum, red maple, tulip poplar, white oak and tree of heaven. Regenerating species include black cherry, red oak, black birch, white oak and red maple.

Unit: 411 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.26 Is species composition changing? Yes
Date: 06/07/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sweetgum | >30' & 5-30' | No | | | Dumping |
| Deciduous | Canada mayflower | <5' | No | | | |
| Chamaephytes | poison ivy | <5' | No | | | |
| Dry | black birch | >30' & 5-30' | No | | | |
| Slope | red maple | <5' - >30' | No | | | |

Comments:

This is a small woodland unit south of the Jewish Community Center and west of Manor Road. There is a stream running along side the unit. Poison ivy and catbrier are taking over the stream. Other species present include cinnamon fern, Japanese barberry, Virginia creeper, jewelweed, sensitive fern, oriental bittersweet, rush species, arrowwood, sweet pepperbush, highbush blueberry, woodland fern, whorled yellow loosestrife, stripped wintergreen, American holly, multiflora rose, goldenrod species, asters, false Solomon's seal, northern bush honeysuckle, mockernut hickory, tree of heaven, rhododora and American Beech.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 412 **Classification** IB2a1 **Management Concerns**
Acreage: 0.10 Is species composition changing? No Deer Impact
Date: 06/06/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | black birch | <5' & >30' | No | | | |
| Deciduous | sweet pepperbush | <5' | No | | | |
| Phanerophytes | red oak | >30' | | | | |
| Moist | | | | | | |
| Knoll | | | | | | |

Comments:

This is a small closed forest north of the stream and just west of Manor road. There are several old red oaks in the canopy but black birch is dominating the regeneration. The black birch is very dense. Other species include mapleleaf viburnum, lowbush blueberry, white oak, red maple, catbrier, American beech, highbush blueberry, Canada mayflower, rhododora and sweetgum.

Unit: 413 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.34 Is species composition changing? No Deer Impact
Date: 06/07/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red oak | >30' | No | | | |
| Deciduous | highbush blueberry | >30' & 5-30' | No | | | |
| Chamaephytes | sweet pepperbush | >30' & 5-30' | No | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a small woodland unit just west of Manor road. It has a dense shrub layer along with good tree regeneration. Red oak dominates the canopy with blueberry and sweet pepperbush in the understory. Other species include swamp white oak, American chestnut, catbrier, sweetgum, cinnamon fern, sassafras, black birch, red maple, mapleleaf viburnum, Canada mayflower, moss, New York fern, oriental bittersweet, black gum, black oak, rhododora and American beech. Regenerating species include white oak, sassafras and black cherry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 414 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.37 Is species composition changing? No Ecol. Interact/Ref. Site
Date: 06/08/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | highbush blueberry | <5' & 5-30' | No | | | Trash |
| Deciduous | red oak | >30' | No | | | |
| Chamaephytes | sweet pepperbush | <5' & 5-30' | No | | | |
| Moist | sweetgum | <5' & 5-30' | No | | | |
| Slope | Canada mayflower | <5' | No | | | |

Comments:

This is a nice woodland unit west of Manor road, across from Pouch Camp. There is a stream running through the southern part of the unit. Highbush blueberry and sweet pepperbush dominate the understory, but there is significant sweetgum regeneration occurring. Red oaks dominate the canopy but there is little regeneration. Other species include red maple, white oak, stripped wintergreen, Canada mayflower, lowbush blueberry, mapleleaf viburnum, catbrier, cool season grass, arrowwood, rhododora, poison ivy, Virginia creeper, cinnamon fern, New York fern, moss, multiflora rose, violets, red maple, white oak, black gum, black birch. Regenerating species include sweetgum, white oak, American beech, black birch, black cherry, red maple and red oak.

Unit: 415 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.59 Is species composition changing? No Ecol. Interact/Ref. Site
Date: 06/08/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | highbush blueberry | <5' & 5-30' | No | Fence | | Trash |
| Deciduous | red oak | >30' | No | | | |
| Chamaephytes | white oak | <5' - >30' | No | | | |
| Moist | lowbush blueberry | <5' | No | | | |
| Undulating | | | | | | |

Comments:

This is a woodland west of Pouch Camp. Red and white oak dominate the canopy with high and lowbush blueberry dominating the understory. There are a couple spots where sweet pepperbush is dominant. There is also significant tree regeneration with several relatively tall American chestnuts. Other species include mapleleaf viburnum, catbrier, poison ivy, Canada mayflower, Virginia creeper, stripped wintergreen, rhododora and asters.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 416 **Classification** IVA3a5 **Management Concerns**
Acreage: 0.04 Is species composition changing? No
Date: 06/08/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Riparian Buffer | jewelweed | <5' | No | | | Trash |
| Deciduous | sweet pepperbush | <5' | No | | | Erosion |
| Hemicryptophytes | Virginia creeper | <5' | No | | | Dumping |
| Surface water | | | | | | |
| Slope | | | | | | |

Comments:

This unit is a stream running from Manor road west toward Seaview. Red maple and sweetgum dominate the canopy over the stream. Streambanks are eroding and several trees are at risk of falling. The dominant bed material is gravel, the entrenchment ration is moderate, the width/depth ratio is moderate, and the sinuosity of the stream is high, according to the Rosgen stream classification system. Jewelweed and Virginia creeper dominate the banks and sweet pepperbush overhangs the stream. Other species include violets, Japanese stiltgrass, poison ivy, oriental bittersweet, highbush blueberry, cinnamon fern, moss, goldenrod, asters, cool season grass and halberd-leaved tearthumb. Regenerating species include sweetgum and red maple.

Unit: 417 **Classification** IVB1c **Management Concerns**
Acreage: 0.03 Is species composition changing? No
Date: 06/07/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Aquatic (fresh) | poison ivy | <5' & 5-30' | No | | | |
| Deciduous | red maple | <5' - >30' | No | | | |
| Hemicryptophytes | | | | | | |
| Surface water | | | | | | |
| Level | | | | | | |

Comments:

This is a small wetland unit just off Manor road, across from Pouch Camp. There is one pin oak, one sweetgum and a couple of red maples, but mostly dominated by poison ivy. Other species include arrowwood, highbush blueberry, sweet pepperbush and scarlet oak.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 418 **Classification** IIB2a2 **Management Concerns**
Acreeage: 1.03 Is species composition changing? No Deer Impact
Date: 06/11/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|-------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red oak | <5' - >30' | No | | | Trash |
| Deciduous | lowbush blueberry | <5' | No | | | Dumping |
| Chamaephytes | black oak | <5' & >30' | No | | | |
| Moist | | | | | | |
| Undulating | | | | | | |

Comments:

This is a woodland unit that borders Manor road. Oaks dominate the canopy and lowbush blueberry dominates the herb layer. There is also a lot of poison ivy and significant tree regeneration. Arrowwood, mapleleaf viburnum, Canada mayflower, poison ivy, lowbush blueberry, Virginia creeper, sweet pepperbush, catbrier, porcelainberry, highbush blueberry, American chestnut, stripped wintergreen, wild sarsaparilla, moss, Solomon's seal, multiflora rose, Indian pipe, red maple, red oak, sweetgum, American beech, black gum, mockernut hickory, white oak, black birch and shagbark hickory are also present. Regenerating species include sassafras, red oak, sweetgum, American beech, blackgum, hickory species, white oak and black birch.

Unit: 419 **Classification** IB2a3 **Management Concerns**
Acreeage: 1.06 Is species composition changing? No
Date: 06/11/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------|---------------|---------------|-------------------|--------------|---------------------|
| Closed Forest | red oak | <5' & >30' | No | Fence | Foot traffic | Trash |
| Deciduous | red maple | <5' - >30' | No | | | Dumping |
| Hemicryptophytes | black birch | <5' - >30' | No | | | |
| Moist | aster species | <5' | No | | | |
| Slope | | | | | | |

Comments:

This is a closed forest running south along the stream. Red and white Oak, red maple, and black birch dominate the canopy while herbs dominate the understory. There are a few shrub species including spicebush, highbush blueberry and mapleleaf viburnum. Other species present include Virginia creeper, spicebush, Japanese honeysuckle, Norway maple, cinnamon fern, highbush blueberry, New York fern, European privet, oriental bittersweet, Virginia waterleaf, multiflora rose, jewelweed, lowbush blueberry, winged euonymus, swan's sedge, northern lady fern, false Solomon's seal, aster species, halberd-leaved tearthumb, violets, strawberry bush, catbrier, Canada mayflower, garlic mustard, poison ivy, Asiatic daylily, round-leaf pyrrola, whorled yellow looserstrife, path rush, goldenrod, moss and wild sarsaparilla.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 420 **Classification** IB2a2 **Management Concerns**
Acraege: 1.11 Is species composition changing? No Invasive Sp.
Date: 06/11/2012 Is community structure changing? No Deer Impact

| Site: | Species | Height | Exotic | Historical | Uses | Disturbances |
|---------------|-------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red oak | <5' & >30' | No | | | Trash |
| Deciduous | white oak | <5' - >30' | No | | | Dumping |
| Chamaephytes | lowbush blueberry | <5' | No | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a closed forest unit with a slope on one side and borders the blue trail on the other side. The canopy is dominated by red oak and white oak. The ground cover is dominated by lowbush blueberry. There is a lot of regeneration occurring in the understory. Other species include mockernut hickory, sweetgum, poison ivy, trailing dewberry, mapleleaf viburnum, highbush blueberry, lowbush blueberry, red oak, white oak, striped wintergreen, asters, rush species, panicled leaf tick trefoil, Virginia creeper, goldenrod, sassafras, black birch, Canada mayflower, wild sarsaparilla, catbrier and swan's sedge. Regenerating species include mockernut hickory, sweetgum, blackgum, white oak, red oak, sassafras, black cherry, American Beech and red maple.

Unit: 421 **Classification** IIB2a2 **Management Concerns**
Acraege: 0.57 Is species composition changing? No Deer Impact
Date: 06/14/2012 Is community structure changing? No

| Site: | Species | Height | Exotic | Historical | Uses | Disturbances |
|--------------|-------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | black oak | >30' & 5-30' | No | | | |
| Deciduous | sassafras | <5' & 5-30' | No | | | |
| Chamaephytes | sweetgum | <5' - >30' | No | | | |
| Moist | lowbush blueberry | <5' | No | | | |
| Slope | black birch | >30' & 5-30' | No | | | |

Comments:

This is a nice woodland between Manor Road and a stream. Black oak dominates the canopy and there is also a lot of sassafras. It slopes down from north to south but also slopes into a depression on the eastern edge of the unit. Sassafras regeneration and lowbush blueberry dominate the herb layer, with a few taller shrubs in the unit. Other species present include catbrier, lowbush blueberry, Highbush blueberry, dangleberry, stripped wintergreen, Japanese stiltgrass, Azalea species, sweet pepperbush, hayscented fern, mapleleaf viburnum, New York fern, moss, cinnamon fern, Virginia creeper, whorled yellow loosestrife, spicebush, American chestnut, common path rush, wild sarsaparilla, Indian pipe, poison ivy and arrowwood.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | |
|-----------------|------------|----------------------------------|-------|----------------------------|
| Unit: | 422 | Classification | VIIIC | Management Concerns |
| Acraege: | 1.14 | Is species composition changing? | No | Invasive Sp. |
| Date: | 06/14/2012 | Is community structure changing? | No | |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | multiflora rose | <5' & 5-30' | Yes | | | Trash |
| Deciduous | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Lianas | porcelainberry | <5' & 5-30' | Yes | | | |
| Moist | jewelweed | <5' | No | | | |
| Slope | catbrier | <5' & 5-30' | No | | | |

Comments:

This unit is a vineland just west of the stream. There are several downed mulberry trees and a few downed native trees (black cherry, tulip poplar, slippery elm). Multiflora rose, oriental bittersweet and porcelainberry cover everything. There is some spicebush remaining and some small trees are trying to regenerate (tulip poplar, sweetgum, hickory species and oak species). The canopy is almost completely open. It extends south past the blue trail and at that point crosses to the east side of the stream. Other canopy species present include tree of heaven, sweetgum, Japanese angelica, black cherry and white ash. Other species present include Norway maple, asters, garlic mustard, Virginia creeper, Japanese honeysuckle, wineberry, goldenrod, American pokeweed, European privet, poison ivy, evergreen wood fern, American hazelnut, wild yam, violets and Virginia waterleaf.

| | | | | |
|-----------------|------------|----------------------------------|-------|----------------------------|
| Unit: | 423 | Classification | VIIIC | Management Concerns |
| Acraege: | 0.29 | Is species composition changing? | No | Invasive Sp. |
| Date: | 06/14/2012 | Is community structure changing? | No | Deer Impact |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | catbrier | <5' & 5-30' | No | | | Trash |
| Deciduous | spicebush | <5' | No | | | Dumping |
| Lianas | poison ivy | <5' - >30' | No | | | |
| Moist | multiflora rose | <5' & 5-30' | Yes | | | |
| Slope | Virginia creeper | <5' | No | | | |
| | oriental bittersweet | <5' - >30' | Yes | | | |

Comments:

This is a small vineland on the east bank of the stream across from a larger vineland. Vine composition is similar but there are more canopy trees. There is a lot of spicebush that has been overtaken by catbrier. There is also some tree regeneration, though the vines are beginning to overcome the larger saplings. Canopy species include Norway maple, tree of heaven, white oak, black oak, sweetgum, Japanese angelica, red maple, black birch and green ash. Other species present include American hazelnut, Japanese barberry, common path rush, garlic mustard, Japanese honeysuckle, arrowwood, jewelweed, Solomon's seal, American pokeweed, trailing dewberry, mapleleaf viburnum, Azalea species, goldenrod, northern lady fern and European privet. Regenerating species are black oak, black cherry, green ash, sweetgum, red maple, white oak and sassafras.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 424 **Classification** VIIIIC **Management Concerns**
Acreage: 0.33 Is species composition changing? No Invasive Sp.
Date: 06/14/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | multiflora rose | <5' & 5-30' | Yes | | | Dumping |
| Deciduous | Japanese honeysuckle | <5' | Yes | | | |
| Lianas | Norway maple | <5' - >30' | Yes | | | |
| Moist | catbrier | <5' & 5-30' | Yes | | | |
| Slope | oriental bittersweet | <5' & 5-30' | Yes | | | |
| | porcelainberry | <5' & 5-30' | Yes | | | |

Comments:

This is a vineland north of another vineland, south of a hospital building and west of the stream. There are more canopy trees present here. They include Norway maple, black oak, black birch, tree of heaven, tulip poplar, sweetgum, angelica tree. Regenerating species include hickory species, Norway maple, sweetgum, tulip tree, black oak, black cherry. Other species include porcelainberry, poison ivy, spicebush, Virginia creeper, Japanese honeysuckle, garlic mustard, Solomon's seal, oriental bittersweet, Virginia waterleaf, swan's sedge, wintergreen, green ash, European privet, wineberry, smartweed, wild yam, stinging nettle, jewelweed, bloodroot, henbit, Virginia knotweed, violets, enchanter's nightshade, hog peanut and mapleleaf viburnum.

Unit: 425 **Classification** IIB2a3 **Management Concerns**
Acreage: 0.12 Is species composition changing? No Invasive Sp.
Date: 06/14/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | Norway maple | <5' - >30' | Yes | | | |
| Deciduous | hog peanut | <5' | No | | | |
| Hemicryptophytes | Virginia waterleaf | <5' | No | | | |
| Moist | stinging nettle | <5' | No | | | |
| Slope | | | | | | |

Comments:

This is a steeply sloped woodland. It slopes from east of the stream down to the stream. The southern border of the unit is the fence that crosses the stream. There is a vineland to the south of this unit. Other canopy species include slippery elm, American hop hornbeam, red maple and white mulberry. Other species present include cluster snakeroot, garlic mustard, European privet, enchanter's nightshade, Japanese honeysuckle, jewelweed, violets, catbrier, spicebush, Solomon's seal, cool season grasses, Asiatic daylily, asters, multiflora rose, Virginia wild rye, fox sedge, hog peanut, bloodroot and Christmas fern.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 426 **Classification** IB2a3 **Management Concerns**
Acreage: 0.81 Is species composition changing? No Invasive Sp.
Date: 06/14/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | Norway maple | <5' - >30' | Yes | | | |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Hemicryptophytes | privet | <5' | Yes | | | |
| Moist | sweetgum | <5' - >30' | No | | | |
| Slope | multiflora rose | <5' & 5-30' | Yes | | | |
| | Japanese honeysuckle | <5' | Yes | | | |

Comments:

This is a closed forest unit just south of an old hospital building and east of the stream. The understory is predominantly invasives, both shrubs and vines. There is significant dumping and trash at the top of the steep slope, near the hospital. Other species include cluster snakeroot, long styled sweet cicely, poison ivy, Virginia creeper, oriental bittersweet, catbrier, spicebush, enchanter's nightshade, Japanese barberry, cleavers, garlic mustard, Solomon's seal, pin oak, black birch, sweetgum, American beech, tree of heaven, red oak and white oak.

Unit: 427 **Classification** IB2a2 **Management Concerns**
Acreage: 0.43 Is species composition changing? No Deer Impact
Date: 06/15/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|-------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | |
| Deciduous | black oak | <5' - >30' | No | | | |
| Chamaephytes | black birch | <5' - >30' | No | | | |
| Moist | lowbush blueberry | <5' | No | | | |
| Slope | spicebush | <5' | No | | | |
| | | 0 | | | | |

Comments:

This is a closed forest east of the stream and its adjacent vineland. The vines are spreading into this unit at some points. Otherwise the canopy and understory are healthy. Lots of deer rub and game trails running through this unit. Lots of tree regeneration including sweetgum, black birch, American beech, black oak, white oak and red oak.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 428 **Classification** IB2a2 **Management Concerns**
Acreeage: 0.82 Is species composition changing? No Deer Impact
Date: 06/15/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|------------------|---------------|---------------|-------------------|--------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | Foot traffic | Dumping |
| Deciduous | sassafras | <5' & >30' | No | | | Trash |
| Chamaephytes | poison ivy | <5' & >30' | No | | | |
| Moist | Virginia creeper | <5' & 5-30' | No | | | |
| Undulating | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a closed forest unit between the stream and Manor Road. The blue trail dissects it and Japanese stillgrass is dominating the trail edges. There are mostly sweetgum in the canopy mixed with a lot of sassafras and a few other species, included black oak, black birch, red maple, Norway maple and tulip poplar. Spicebush is dominant in the shrub layer and poison ivy and Virginia creeper dominate the herbaceous layer. Other species present include oriental bittersweet, mapleleaf viburnum, winged euonymus, arrowwood, lowbush blueberry, common path rush, multiflora rose, Canada mayflower, Solomon's seal, Azalea species, deertongue grass, Aster species, wineberry, catbrier, Japanese honeysuckle, jewelweed, Japanese angelica, New York fern, American chestnut, smartweed, American pokeweed, shagbark hickory, American hazelnut, privet, grape species, geranim species, sweet cherry, wild yam and round-leaf pyrola. Regenerating species include white oak, black cherry, sassafras, red maple, sweetgum, black oak and hickory species.

Unit: 429 **Classification** IIB2a2 **Management Concerns**
Acreeage: 1.53 Is species composition changing? No Deer Impact
Date: 06/15/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|------------------|---------------|---------------|-------------------|--------------|---------------------|
| Woodland | sweetgum | <5' - >30' | No | | Foot traffic | Trash |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | Virginia creeper | <5' & 5-30' | No | | | |
| Slope | | | | | | |

Comments:

This is a large woodland northeast of the lower serpentines and west of the stream and its adjacent vineland. The blue trail runs through the southern edge of the unit. The canopy is almost solely sweetgum but there are a couple tulip poplar, Norway maple, slippery elm and white oak. The understory is predominantly spicebush but multiflora rose, garlic mustard and Virginia creeper are dominant in some places. Other species present include mapleleaf viburnum, poison ivy, asters, Canada mayflower, privet, arrowwood, oriental bittersweet, Japanese honeysuckle, violets, sensitive fern, northern lady fern, Solomon's seal and grape species.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 430 **Classification** VIIIC **Management Concerns**
Acreage: 0.90 Is species composition changing? No Invasive Sp.
Date: 06/19/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | porcelainberry | <5' & 5-30' | Yes | Road | | Erosion |
| Deciduous | multiflora rose | <5' & 5-30' | Yes | Foundation | | Dumping |
| Lianas | mugwort | <5' | Yes | | | Trash |
| Moist | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Knoll | garlic mustard | <5' | Yes | | | |

Comments:

This is a huge vineland adjacent to old and new Seaview buildings. Porcelainberry makes up roughly 90% of the vegetation. The southern edge of the unit runs along an old Seaview road & the eastern edge descends down a steep slope and has significant dumping. The western edge also has a lot of dumping and a lot of garlic mustard. There are a few trees trying to survive (tulip poplar, black oak, green ash, Norway maple and tree of heaven). Mugwort dominates where porcelainberry is minimal & multiflora rose is mixed in all over with the porcelainberry. Other species include oriental bittersweet, enchanter's nightshade, warm season grasses, wineberry, oriental bittersweet, poison ivy, spicebush, European privet, Japanese angelica-tree, white mulberry, Norway maple, tulip tree, red maple and American beech.

Unit: 431 **Classification** IB2a2 **Management Concerns**
Acreage: 0.84 Is species composition changing? No Invasive Sp.
Date: 06/19/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | black oak | >30' & 5-30' | No | Fence | | Erosion |
| Deciduous | sweetgum | >30' & 5-30' | No | | | Dumping |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | Trash |
| Moist | mapleleaf viburnum | <5' | No | | | |
| Undulating | garlic mustard | <5' | Yes | | | |

Comments:

This is a closed forest unit to the east of a vineland. The southern and northwestern part of the unit has a lot of dumping. There is also a gully running through the northwest end and a fence running through the southern end. Black oak and sweetgum dominate the canopy, spicebush and garlic mustard dominate the understory. Other species include blackhaw, mapleleaf viburnum, porcelainberry, Virginia creeper, poison ivy, Canada mayflower, tree of heaven, multiflora rose, jewelweed, Japanese honeysuckle, oriental bittersweet, grape species, Solomon's seal, catbrier, asters, goldenrods and arrowwood.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 432 **Classification** VIIIC **Management Concerns**
Acreage: 0.67 Is species composition changing? No Invasive Sp.
Date: 06/19/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | porcelainberry | <5' - >30' | Yes | | | Trash |
| Deciduous | multiflora rose | <5' & 5-30' | Yes | | | |
| Lianas | Virginia creeper | <5' | No | | | |
| Moist | spicebush | <5' & 5-30' | No | | | |
| Slope | garlic mustard | <5' | Yes | | | |
| | jewelweed | <5' | No | | | |

Comments:

This is a large canopy opening just east of Seaview. Vines have taken over the understory. A few remaining tree species are sweetgum, black birch, scarlet oak, black oak and mockernut hickory. Porcelainberry dominates the understory and is growing on top of a lot of spicebush and some multiflora rose. There are also many downed trees that the vines are covering. A gully runs along the southern edge. Other species include Virginia creeper, garlic mustard, jewelweed, Japanese honeysuckle, American pokeweed, multiflora rose, oriental bittersweet, Asiatic dayflower, blackhaw, sweetgum, black birch, scarlet oak and tulip tree. Regenerating species include Norway maple, sweetgum and hickory species.

Unit: 433 **Classification** IB2a2 **Management Concerns**
Acreage: 1.21 Is species composition changing? No Invasive Sp.
Date: 06/19/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | Road | | Erosion |
| Deciduous | black oak | >30' | No | | | Dumping |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | Trash |
| Moist | black birch | >30' & 5-30' | No | | | |
| Undulating | red oak | >30' & 5-30' | No | | | |
| | tulip poplar | >30' & 5-30' | No | | | |

Comments:

This is a large closed forest unit west of the stream and east of a vineland. In the area directly adjacent to the vineland, there is a small canopy opening and invasive species are beginning to take over (multiflora rose, oriental bittersweet and garlic mustard). There is a fence and two gullies that dissect the unit. All run east to west. There are several species dominating the canopy, black oak, sweetgum, tulip poplar, black birch and red oak are the most obvious. Spicebush dominates the shrub layer and Virginia creeper is thick on the forest floor. Other species include arrowwood, spicebush, mapleleaf viburnum, Virginia creeper, garlic mustard, oriental bittersweet, jewelweed, multiflora rose, Japanese honeysuckle, poison ivy, black birch, tulip poplar, Norway maple, sweetgum, American hop hornbeam and white oak. Regenerating species include sweetgum, black cherry, hickory species, Norway maple and black oak.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 434 **Classification** IB2a2 **Management Concerns**
Acraege: 0.40 Is species composition changing? No Invasive Sp.
Date: 06/19/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | Norway maple | <5' - >30' | Yes | | | Erosion |
| Deciduous | black oak | <5' - >30' | No | | | Dumping |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | Trash |
| Moist | garlic mustard | <5' | Yes | | | |
| Slope | poison ivy | <5' - >30' | No | | | |

Comments:

This is a small closed forest unit in the north part of the park. It is just north of a vineland and has both old and new Seaview buildings to the north, east and west. The canopy is primarily Norway maple with a couple black oak and sweetgum mixed in. There is also one American catalpa. Spicebush dominates the understory but there are many invasives (garlic mustard, wineberry, oriental bittersweet and multiflora rose). There is dumping along the eastern and western edges by Seaview and a gully runs down from the northwest edge through the south east border of the unit. There is erosion on the sides of this gully. Other species present include American pokeweed, tree of heaven, Virginia creeper, porcelainberry, Japanese honeysuckle, violets, jewelweed, catbrier, enchanter's nightshade, goldenrod species and common path rush. Regenerating species include black oak, Norway maple, slippery elm, black cherry and hickory species

Unit: 435 **Classification** IB2a6 **Management Concerns**
Acraege: 0.29 Is species composition changing? No Deer Impact
Date: 06/20/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | |
| Deciduous | sassafras | >30' & 5-30' | No | | | |
| Lianas | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | poison ivy | <5' - >30' | No | | | |
| Slope | Japanese honeysuckle | <5' | Yes | | | |
| | Virginia creeper | <5' | No | | | |

Comments:

This is a small closed forest unit east of the serpentine and west of the vineland that is adjacent to the stream. Young sassafras and sweetgum dominate the canopy and vines dominate the understory. There are not very many shrubs in this unit. Other species present include spicebush, American hazelnut, flowering dogwood, oriental bittersweet, wild yam, cool season grass, trailing dewberry, northern lady fern, round-leaf pyrola and asters. Regenerating species include white oak, sweetgum, black cherry, tulip poplar and Japanese angelica tree.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 436 **Classification** IIB2a6 **Management Concerns**
Acreeage: 0.27 Is species composition changing? No Deer Impact
Date: 06/20/2012 Is community structure changing? Yes Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sweetgum | <5' - >30' | No | | | |
| Deciduous | sassafras | <5' & 5-30' | No | | | |
| Lianas | Japanese honeysuckle | <5' | Yes | | | |
| Moist | Japanese angelica | <5' & 5-30' | Yes | | | |
| Slope | oriental bittersweet | <5' & 5-30' | Yes | | | |
| | Virginia creeper | <5' | No | | | |

Comments:

This is a small woodland unit just east of the upper serpentines. Sweetgum and sassafras are dominant in the canopy with a lot of Japanese angelica tree as well. Vines are covering the understory and may be changing this unit to a vineland. Other species include trailing dewberry, mapleleaf viburnum, spicebush, poison ivy, multiflora rose, whorled yellow loosestrife, Solomon's seal species, goldenrod species, porcelainberry, Canada mayflower, cool season grass, catbrier, black birch, bayberry, deertongue grass and common dandelion. Regenerating species include black oak, tulip poplar, sassafras, sweetgum, black cherry, hickory species, black oak, American beech and white oak.

Unit: 437 **Classification** IB2a2 **Management Concerns**
Acreeage: 1.32 Is species composition changing? No Deer Impact
Date: 06/20/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | Trash |
| Deciduous | black oak | <5' - >30' | No | | | |
| Chamaephytes | lowbush blueberry | <5' | No | | | |
| Moist | poison ivy | <5' & 5-30' | No | | | |
| Slope | mapleleaf viburnum | <5' & 5-30' | No | | | |

Comments:

This is a closed forest unit dominated by sweetgum and black oak. It is adjacent to Manor Road. The shrub layer is lower than most other the surrounding units, being made up of lowbush blueberry and small mapleleaf viburnum. There is also good tree regeneration. Poison ivy is also dominant in the herb and shrub layers. Other species include blackgum, American chestnut, whorled yellow loosestrife, New York fern, Virginia creeper, highbush blueberry, Japanese stiltgrass, arrowwood, Canada mayflower, catbrier, Solomon's seal species, Azalea species, hayscented fern, wild sarsaparilla and spicebush. Regenerating species include sweetgum, white oak, sassafras, black birch, black cherry, black oak and Japanese angelica tree.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 438 **Classification** IB2a2 **Management Concerns**
Acreeage: 1.10 Is species composition changing? No Deer Impact
Date: 06/20/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | poison ivy | <5' - >30' | No | | | |
| Moist Slope | highbush blueberry | <5' & 5-30' | No | | | |

Comments:

This is a closed forest unit with a lot of sweetgum in the canopy. This unit starts near Manor road and continues west, ending close to the stream. Sweetgum is dominant but black birch, black oak, blackgum, red oak, red maple, mockernut hickory and sassafras are also present in the canopy. Spicebush and highbush blueberry dominate the shrub layer, but there is also a lot of poison ivy. Other species include Virginia creeper, mapleleaf viburnum, lowbush blueberry, privet, multiflora rose, Japanese angelica, New York fern, arrowwood, Azalea, species, catbrier, trailing dewberry and Solomon's seal species. Regenerating species include black cherry, tulip poplar, white oak, sassafras, hickory species and sweetgum.

Unit: 439 **Classification** IB2a2 **Management Concerns**
Acreeage: 0.30 Is species composition changing? No Deer Impact
Date: 06/22/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|----------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | red maple | >30' & 5-30' | No | | | |
| Wet Depression | multiflora rose | <5' & 5-30' | Yes | | | |
| | jewelweed | <5' | No | | | |
| | Virginia creeper | <5' | No | | | |

Comments:

This is a closed forest unit that runs north to south on the east side of the stream. A vineland separates it from the stream, but the soil is wet and has standing water in some places. The southern border of the unit is the stream. The canopy is dominated by sweetgum and red maple. Spicebush is dominant in the shrub layer, but there is also quite a bit of multiflora rose which gets thicker closer to the vineland. It is possible the vineland will move east into this unit. Other species in the canopy are mockernut hickory, black oak, tulip poplar, tree of heaven, white oak and Norway maple. Other species present are trailing dewberry, poison ivy, lowbush blueberry, arrowwood, Japanese honeysuckle, oriental bittersweet, privet, garlic mustard, wineberry, sensitive fern, cool season grass, meadow rue, enchanter's nightshade, violets, goldenrods and sedges. Regenerating species include black cherry, sweetgum, tree of heaven, ash species, and lots of hickory species.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 440 **Classification** IB2a2 **Management Concerns**
Acreeage: 0.05 Is species composition changing? No Deer Impact
Date: 06/22/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | >30' | No | | | Dumping |
| Deciduous | green ash | <5' - >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Wet | multiflora rose | <5' & 5-30' | Yes | | | |
| Depression | skunk cabbage | <5' | No | | | |
| | Virginia creeper | <5' | No | | | |

Comments:

This is a small closed forest unit that runs next to the stream. The soil is wet and has standing water in some places. Red maple and green ash dominate the canopy, but there is also European black alder, black cherry and sweetgum. In the shrub layer, there is spicebush throughout, but less so in the wetter areas, where skunk cabbage is dominant. There is also a lot of multiflora rose in this unit, it likely grew out of the vineland to the north. Other species present include poison ivy, Japanese honeysuckle, oriental bittersweet, Japanese stiltgrass, cool season grass, jewelweed, catbrier, porcelainberry, privet, white avens, cranesbill species, spinulose wood fern, northern lady fern, sensitive fern, cinnamon fern, Jack in the pulpit, goldenrods, enchanter's nightshade, violets, Virginia knotweed and meadow rue species. Regenerating species include green ash, black cherry, sweetgum, hickory species and sweetgum.

Unit: 441 **Classification** VIIIIC **Management Concerns**
Acreeage: 0.10 Is species composition changing? No Invasive Sp.
Date: 06/22/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | porcelainberry | <5' & 5-30' | Yes | | | Trash |
| Deciduous | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Lianas | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Moist | catbrier | <5' & 5-30' | No | | | |
| Level | wineberry | <5' & 5-30' | Yes | | | |

Comments:

This unit is a vineland between a house and the stream. Vines are mostly covering spicebush and other vines, but they are also covering a few young trees (Japanese angelica and sassafras). Other species present include garlic mustard, Jack in the pulpit, American pokeweed, Virginia creeper, poison ivy, grape species, Japanese stiltgrass, cool season grass, mugwort and multiflora rose.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 442 **Classification** IIB2a6 **Management Concerns**
Acreage: 0.04 Is species composition changing? No
Date: 06/22/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | green ash | >30' & 5-30' | No | | | Trash |
| Deciduous | red maple | <5' - >30' | No | | | |
| Lianas | Japanese honeysuckle | <5' | Yes | | | |
| Surface water | jewelweed | <5' | No | | | |
| Level | Virginia creeper | <5' | No | | | |

Comments:

This is a small woodland that is an ephemeral pond. Ash and maples dominate the canopy and the vegetation under thirty feet is sparse. The edges of the pond have some multiflora rose and spicebush. Other species present include slippery elm, Norway maple, arrowwood, Japanese stiltgrass, oriental bittersweet and poison ivy. There is a little red maple regeneration.

Unit: 443 **Classification** IB2a3 **Management Concerns**
Acreage: 0.05 Is species composition changing? No
Date: 06/22/2012 Is community structure changing? No
 Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | blackgum | >30' & 5-30' | No | | | |
| Deciduous | black oak | >30' | No | | | |
| Hemicryptophytes | Canada mayflower | <5' | No | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a small closed forest unit just south of a pond. It is dominated by young blackgum with a few black oaks also present. Vegetation in the understory is sparse. Other species include white oak, spicebush, arrowwood, mapleleaf viburnum, catbrier, Virginia creeper, trailing dewberry, oriental bittersweet, poison ivy, wild sarsaparilla, privet and multiflora rose.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 444 **Classification** IVA2i **Management Concerns**
Acreage: 0.15 Is species composition changing? No Encroachment
Date: 06/22/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Herbaceous Deciduous Geophytes Moist Slope | cool season grass | <5' | No | | | Dumping Trash |

Comments:

This is a lawn and vegetable garden. It is adjacent to a house that is not on parks property, but the home owners have expanded their use into parks property. They have a boat, trash and dumping on parks land in addition to the lawn and vegetable garden. Large 'No trespassing' signs are posted near the entrance to the unit.

Unit: 445 **Classification** VIIC **Management Concerns**
Acreage: 0.54 Is species composition changing? No
Date: 06/25/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---|--|---|-------------------------------|--------------------------|--------------------|----------------------------|
| Vineland Deciduous Lianas Moist Slope | Japanese honeysuckle multiflora rose fox grape porcelainberry Virginia creeper | <5' & 5-30' <5' & 5-30' <5' & 5-30' <5' & 5-30' <5' & 5-30' | Yes Yes No Yes No | | | |

Comments:

This is a large vineland that surrounds a house on all sides. Vines are mostly growing on other vines. There is some spicebush and a few canopy trees (green ash, tree of heaven, white mulberry and sweetgum) that have been overcome by the vines. Other species present include mugwort, garlic mustard, American pokeweed, cool season grass, curly dock, jewelweed, Phragmites, wineberry and privet. There is a little bit of ash regeneration.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 446 **Classification** IB2a2
Acreage: 0.86 Is species composition changing? No
Date: 06/22/2012 Is community structure changing? No

Management Concerns

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | red maple | >30' | No | | | Trash |
| Deciduous | green ash | <5' & >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | Japanese honeysuckle | <5' | Yes | | | |
| Slope | multiflora rose | <5' | Yes | | | |

Comments:

This is a closed forest unit just south of the vineland that surrounds the lawn. It borders Manor Road on the southeast edge. Many young vinelands are to the south and west of this unit. Red maple and green ash dominate the canopy while spicebush, multiflora rose and Japanese honeysuckle dominate the understory. There are flags in this unit warning of an underground natural gas pipe. This pipe seems to run north/south through the middle of the unit. Other species present include blackgum, northern lady fern, hayscented fern, cinnamon fern, New York fern, Virginia creeper, poison ivy, sassafras, catbrier, Canada mayflower, arrowwood, Solomon's seal species,, trailing dewberry, enchanter's nightshade, oriental bittersweet, garlic mustard and American beech. Sassafras and green ash are regenerating.

Unit: 447 **Classification** VIIIIC
Acreage: 2.63 Is species composition changing? No
Date: 06/25/2012 Is community structure changing? No

Management Concerns

Invasive Sp.
Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Vineland | chicken grape | <5' - >30' | No | | | Dumping |
| Deciduous | oriental bittersweet | <5' - >30' | Yes | | | Trash |
| Lianas | fox grape | <5' - >30' | No | | | |
| Moist | porcelainberry | <5' - >30' | Yes | | | |
| Undulating | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| | multiflora rose | <5' & 5-30' | Yes | | | |

Comments:

This is a very large vineland North of Moses' mountain and west of Manor Road. The stream runs through the west side of the vineland and the blue trail borders part of the western side. There are several large canopy trees that have been overcome by the vines. Other species present include catbrier, goldenrods, Virginia knotweed, Virginia creeper, poison ivy, tree of heaven, ash species, sweetgum, Rubus species, spicebush, enchanter's nightshade, American pokeweed, garlic mustard and Aralia species.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 448 **Classification** IB2a2 **Management Concerns**
Acreage: 0.53 Is species composition changing? Yes Deer Impact
Date: 06/25/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | black oak | <5' & >30' | No | Road | | Dumping |
| Deciduous | red maple | >30' | No | | | Trash |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | arrowwood | <5' & 5-30' | No | | | |
| Slope | Virginia creeper | <5' | No | | | |
| | poison ivy | <5' - >30' | No | | | |

Comments:

This is a closed forest between Manor Road. and a very large vineland. The vines are beginning to take over the unit. Mostly black oak and red maple in the canopy but there is also a lot of ash. There seems to be an old road bed, running east/west, through the middle of the unit. There is also a storm runoff running east/west through the unit. Other species include multiflora rose, Virginia creeper, enchanter's nightshade, poison ivy, spicebush, highbush blueberry, American beech, Japanese honeysuckle, Canada mayflower, black oak, red maple, blackgum, tree of heaven, bigtooth aspen, black cherry, sweetgum, Rubus species, oriental bittersweet, arrowwood, catbrier, sweetgum, Devil's walking stick, jewelweed, grape species, northern lady fern, garlic mustard, sassafras and privet.

Unit: 449 **Classification** IB2a6 **Management Concerns**
Acreage: 0.82 Is species composition changing? No
Date: 06/25/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | >30' & 5-30' | No | | | Dumping |
| Deciduous | multiflora rose | <5' & 5-30' | Yes | | | Trash |
| Lianas | oriental bittersweet | <5' - >30' | Yes | | | |
| Wet | grape spp. | <5' - >30' | Yes | | | |
| Level | Japanese honeysuckle | <5' | Yes | | | |
| | ash spp. | <5' - >30' | No | | | |

Comments:

This is a small vineland east of the stream and north of the large vineland. There are several canopy trees, but vines are beginning to take over. In the southern part of his unit there is a campsite with significant trash, possibly still active. Canopy species include bigtooth aspen, ash species, red maple, black oak and tree of heaven. Other species include Virginia knotweed, garlic mustard, jewelweed, asters, spicebush, sensitive fern, Virginia creeper, poison ivy, jack in the pulpit, New York fern, Canada mayflower, Japanese pachysandra and arrowwood. Regenerating species include oak species, sweetgum and ash species.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 450 **Classification** VIIIIC **Management Concerns**
Acreage: 0.96 Is species composition changing? No Invasive Sp.
Date: 06/25/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | Japanese honeysuckle | <5' & 5-30' | Yes | | | Dumping |
| Deciduous | catbrier | <5' & 5-30' | No | | | Trash |
| Lianas | Virginia creeper | <5' & 5-30' | No | | | |
| Moist | red maple | >30' | No | | | |
| Slope | Japanese angelica | <5' & 5-30' | Yes | | | |
| | oriental bittersweet | <5' & 5-30' | Yes | | | |

Comments:

This is a small vineland northwest of the house on Manor Road. The vines are mostly taking over the layer, occasionally ascending the trees. According to our map the house is within park boundaries. Several canopy trees are present including red maple, black cherry, sweetgum, tulip poplar, tree of heaven and Japanese angelica. The two major shrubs are arrowwood and spicebush. Other species include poison ivy, multiflora rose, Canada mayflower, snakeroot, garlic mustard and Ash species

Unit: 451 **Classification** IB2a2 **Management Concerns**
Acreage: 0.50 Is species composition changing? No Invasive Sp.
Date: 06/25/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | >30' & 5-30' | No | | | Trash |
| Deciduous | green ash | <5' & >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | catbrier | <5' & 5-30' | No | | | |
| Undulating | | | | | | |

Comments:

This is a small closed forest unit west of a house on Manor Road. Vinelands surround the unit and are beginning to invade. Red maple dominates the canopy while vines are beginning to ascend the trees. Spicebush dominates the shrub layer but vines are not far behind. Other species include blackgum, sassafras, sweetgum, black cherry, Canada mayflower, Virginia creeper, catbrier, poison ivy, arrowwood, grape species, privet, multiflora rose, oriental bittersweet, Solomon's seal and Japanese honeysuckle. Regenerating species include tulip poplar, oak species, hickory species, sassafras, sweetgum, black cherry, Japanese angelica, ash species, and blackgum.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|-----------------|------------|----------------------------------|-------|--|-----------------------------------|
| Unit: | 452 | Classification | IB2a6 | | <u>Management Concerns</u> |
| Acreage: | 1.59 | Is species composition changing? | No | | Invasive Sp. |
| Date: | 06/26/2012 | Is community structure changing? | Yes | | Deer Impact |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | Dumping |
| Deciduous | red maple | >30' | No | | | Trash |
| Lianas | catbrier | <5' & 5-30' | No | | | |
| Moist | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Slope | multiflora rose | <5' & 5-30' | Yes | | | |
| | oriental bittersweet | <5' - >30' | Yes | | | |

Comments:

This is a large closed forest unit to the east of the stream. It is surrounded by vinelands and is becoming a vineland itself. Other canopy species include sassafras, black oak, white oak, tree of heaven, white ash, American elm, black cherry, American beech, tulip poplar, spicebush, arrowwood, grape species, garlic mustard, Solomon's seal, highbush blueberry, northern lady fern, cinnamon fern, Virginia creeper, poison ivy, Jewelweed, sensitive fern, wineberry, trailing dewberry, privet, Japanese angelica and swan's sedge. Regenerating species include sweetgum, sassafras, black oak and white oak.

| | | | | | |
|-----------------|------------|----------------------------------|--------|--|-----------------------------------|
| Unit: | 453 | Classification | IIB2a3 | | <u>Management Concerns</u> |
| Acreage: | 0.30 | Is species composition changing? | No | | Invasive Sp. |
| Date: | 06/26/2012 | Is community structure changing? | No | | Deer Impact |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | sweetgum | <5' - >30' | No | | | |
| Deciduous | bigtooth aspen | >30' & 5-30' | No | | | |
| Hydrophytes | Solidago | <5' | No | | | |
| Moist | Japanese honeysuckle | <5' | No | | | |
| Slope | | | | | | |

Comments:

This is a small woodland south of the lower serpentines. It is dominated by young sweetgums and bigtooth aspen. There are also many sassafras trees. Some serpentine species are present such as winged sumac and bigtooth aspen. Other species include oriental bittersweet, highbush blueberry, lowbush blueberry, poison ivy, cool season grass, privet, Virginia creeper, Japanese angelica, arrowwood, catbrier, trailing dewberry, American hazelnut, winged sumac, staggerbush, moss and sensitive fern. Regenerating species include sweetgum, sassafras, American beech, black oak, hickory species, black cherry, Japanese angelica and tulip poplar.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 454 **Classification** IB2a2 **Management Concerns**
Acreeage: 0.97 Is species composition changing? No Invasive Sp.
Date: 06/26/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | |
| Deciduous | sassafras | <5' - >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | highbush blueberry | <5' & 5-30' | No | | | |
| Slope | multiflora rose | <5' & 5-30' | Yes | | | |
| | Japanese honeysuckle | <5' & 5-30' | Yes | | | |

Comments:

This is a small closed forest unit southeast of the lower serpentines. It borders the stream on the eastern edge. The trees are primarily young sweetgum and sassafras. There is a lot of spicebush in the shrub layer and a lot of Japanese honeysuckle on the ground. Other species include New York fern, multiflora rose, poison ivy, black cherry, bigtooth aspen, red maple, arrowwood, Virginia creeper, cinnamon fern, northern lady fern, Canada mayflower, cool season grass, deer tongue grass, lowbush blueberry, highbush blueberry, catbrier, common buckthorn, oriental bittersweet, wineberry, Japanese angelica, garlic mustard, trailing dewberry, violets. Regenerating species include sweetgum, oak species, red maple, sassafras, black cherry and ash species.

Unit: 455 **Classification** IIB2a6 **Management Concerns**
Acreeage: 0.52 Is species composition changing? No Invasive Sp.
Date: 06/26/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sassafras | <5' & 5-30' | No | | | |
| Deciduous | sweetgum | <5' & 5-30' | No | | | |
| Lianas | Japanese honeysuckle | <5' | Yes | | | |
| Moist | Virginia creeper | <5' | No | | | |
| Slope | lowbush blueberry | <5' | No | | | |

Comments:

This is a small woodland east of the lower serpentines. Sweetgum and sassafras dominate the canopy but neither are very tall. Vines are covering the ground and are starting to take over some trees. The blue trail is the northern border and a vineland is on the eastern side of this unit. Other species include common buckhorn, lowbush blueberry, Japanese stiltgrass, multiflora rose, poison ivy, deertongue grass, Aralia species, catbrier, privet, spicebush, goldenrod, bigtooth aspen, highbush blueberry, trailing dewberry, wineberry, oriental bittersweet, arrowwood and moss. Regenerating species include hickory species, black cherry, sassafras and white oak.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 456 **Classification** VIIIIC **Management Concerns**
Acreage: 0.14 Is species composition changing? No Invasive Sp.
Date: 06/26/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | oriental bittersweet | <5' - >30' | Yes | | | Trash |
| Deciduous | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Lianas | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | poison ivy | <5' - >30' | No | | | |
| Slope | catbrier | <5' - >30' | No | | | |
| | sassafras | <5' & 5-30' | No | | | |

Comments:

This is a vineland west of the stream and south of the blue trail. There are other vinelands to the east of this unit but a woodland to its west. Some canopy species exist but are covered in vines. These are sassafras, black oak, sweetgum and bigtooth aspen. There is a steep slope descending from the blue trail to the south. Other species include Japanese stiltgrass, deertongue grass, Solomon's seal, spicebush, American hazelnut, Virginia creeper and privet. Regeneration species include sassafras, sweetgum, hickory species, white oak, and tulip poplar.

Unit: 457 **Classification** VIIIIC **Management Concerns**
Acreage: 1.72 Is species composition changing? No Invasive Sp.
Date: 06/26/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | oriental bittersweet | <5' - >30' | Yes | | | |
| Deciduous | multiflora rose | <5' & 5-30' | Yes | | | |
| Lianas | wisteria | <5' & 5-30' | No | | | |
| Moist | Japanese honeysuckle | <5' & 5-30' | No | | | |
| Undulating | | | | | | |

Comments:

This is a large vineland on the west side of the stream and near the large vineland without many canopy trees. The composition of this vineland is different. Rather than mostly grape, this vineland is primarily oriental bittersweet with a lot of multiflora rose. The blue trail runs through some parts of it and there are several non-vine species on the trail edges such as spicebush, arrowwood, sedge species, Japanese stilt grass, goldenrods, common path rush and deertongue grass. Some trees are regenerating on the path edges as well. These are sweetgum, sassafras, black cherry and oak species

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 458 **Classification** IIB2a3 **Management Concerns**
Acreage: 0.14 Is species composition changing? No Invasive Sp.
Date: 06/26/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|--------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sassafras | <5' & 5-30' | No | | | |
| Deciduous | sweetgum | <5' & 5-30' | No | | | |
| Hemicryptophytes | northern lady fern | <5' | No | | | |
| Wet | | | | | | |
| Slope | | | | | | |

Comments:

This is a small, young woodland. None of the trees are more than 30 feet. Northern lady fern dominates the herb layer. Other species include spicebush, Japanese honeysuckle, poison ivy, Virginia creeper, arrowwood, shagbark hickory, pin oak, black oak, black cherry, Canada mayflower, swamp white oak, cinnamon fern, multiflora rose and red maple.

Unit: 459 **Classification** VIIC **Management Concerns**
Acreage: 0.69 Is species composition changing? No
Date: 06/26/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | catbrier | <5' & 5-30' | No | | | |
| Deciduous | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Lianas | sassafras | <5' & 5-30' | No | | | |
| Moist | multiflora rose | <5' & 5-30' | Yes | | | |
| Slope | bigtooth aspen | <5' & >30' | No | | | |
| | oriental bittersweet | <5' & 5-30' | Yes | | | |

Comments:

This is another vineland. There are a lot of sassafras and aspen trees. Catbrier is the dominant vine, but there is also a lot of Japanese honeysuckle and multiflora rose. Other species include American hazelnut, arrowwood, American beech, red maple, cinnamon fern, trailing dewberry, cool season grass, poison ivy, black oak and sweetgum.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 460 **Classification** IIB2a6 **Management Concerns**
Acreage: 1.23 Is species composition changing? No
Date: 06/26/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sassafras | <5' - >30' | No | | | |
| Deciduous | Japanese honeysuckle | <5' | Yes | | | |
| Lianas | sweetgum | <5' & 5-30' | No | | | |
| Moist | trailing dewberry | <5' | No | | | |
| Slope | oriental bittersweet | <5' | Yes | | | |
| | bigtooth aspen | >30' | No | | | |

Comments:

This is a large woodland west of the blue trail. There are vinelands all around it and this unit is soon to be one. Canopy trees are sassafras, sweetgum, bigtooth aspen and swamp white oak. Some shrubs are present spicebush, arrowwood, highbush blueberry and American hazelnut. Vines cover the ground, Japanese honeysuckle, trailing dewberry, oriental bittersweet, grape species and porcelainberry. Other species include cinquefoil, catbrier, arrowwood, blackgum, American hazelnut, Japanese stiltgrass, purple milkweed, mugwort and european buckthorn. Regenerating species include slippery elm and sassafras.

Unit: 461 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.86 Is species composition changing? No
Date: 06/26/2012 Is community structure changing? Yes
 Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sweetgum | <5' - >30' | No | Road | | Fire |
| Deciduous | devils walking stick | <5' & 5-30' | No | | | Trash |
| Chamaephytes | sassafras | <5' & 5-30' | No | | | |
| Moist | trailing dewberry | <5' | No | | | |
| Slope | Japanese honeysuckle | <5' | No | | | |
| | wineberry | <5' | No | | | |

Comments:

This is a large woodland south of the serpentines and west of the blue trail. Sweetgum is dominant in the canopy and there is a lot regeneration. Devil's walking stick is taking over but there is also a lot of regenerating sassafras. Other species include wineberry, Japanese stilt grass, winged sumac, grape species, goldenrods, multiflora rose, deertongue grass, asters, catbrier, wisteria, Japanese honeysuckle, Virginia creeper, cool season grass, trailing dewberry, sedges, poison ivy, oriental bittersweet, dandelions, tree of heaven, European buckthorn, cinnamon fern, common yarrow and black birch. Regenerating species include sweetgum, sassafras, tulip poplar, oak species and black cherry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 462 **Classification** IIB2a3 **Management Concerns**
Acreage: 0.12 Is species composition changing? No Deer Impact
Date: 06/28/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|-----------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | <5' - >30' | No | | | |
| Deciduous | skunk cabbage | <5' | No | | | |
| Hemicyptophytes | spicebush | <5' & 5-30' | No | | | |
| Surface water | cinnamon fern | <5' | No | | | |
| Slope | New York fern | <5' | No | | | |
| | Canada mayflower | <5' | No | | | |

Comments:

This is a woodland that is west of the main stream but east of a smaller stream. The two streams join just south of this unit. There is surface water in many places and skunk cabbage dominates the ground layer. Red maple dominates the canopy but there is quite a bit of sweetgum regenerating. There is some spicebush throughout the shrub layer but it is not extremely dense. Other species include cinnamon fern, poison ivy, catbrier, Canada mayflower, spicebush, Jewelweed, New York fern, multiflora rose, violets, Japanese honeysuckle, lowbush blueberry, cool season grass, royal fern and arrowwood. Regenerating species include sweetgum, white oak, sassafras, red oak and red maple.

Unit: 463 **Classification** VIIC **Management Concerns**
Acreage: 0.49 Is species composition changing? No Deer Impact
Date: 06/28/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | catbrier | <5' & 5-30' | No | | | |
| Deciduous | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Lianas | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | spicebush | <5' & 5-30' | No | | | |
| Slope | Japanese honeysuckle | <5' | Yes | | | |

Comments:

This is a vineland bordering the main stream, which feeds into Egbertville ravine. It continues to where the two streams combine. Catbrier is the dominant vine. Some edge canopy trees include red maple, sassafras, slippery elm and swamp white oak. There is a wet woodland dominated by skunk cabbage just to the west and is endangered by this vineland. Other species include poison ivy, Virginia creeper, Japanese honeysuckle, arrowwood, multiflora rose, cinnamon fern, spicebush, skunk cabbage, New York fern and jewelweed.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 464 **Classification** IIB2a1 **Management Concerns**
Acreage: 0.47 Is species composition changing? No Deer Impact
Date: 06/28/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | white oak | <5' & >30' | No | | | Trash |
| Deciduous | red maple | <5' - >30' | No | | | |
| Phanerophytes | sassafras | <5' & 5-30' | No | | | |
| Moist | sweetgum | <5' & 5-30' | No | | | |
| Slope | | | | | | |

Comments:

This is a woodland just north of a skunk cabbage unit. A small stream runs along the west and southwest border. The canopy is mostly white oak and red maple but there is also sassafras, bigtooth aspen and pin oak. Sweetgum is also abundant under 30 feet. Regenerating species include sweetgum, sassafras and black cherry. The aspens are all on the northeast edge of the unit forming a nice thick stand. The understory is sparse. Only a few shrubs are present. Other species include sassafras, arrowwood, cool season grass, catbrier, Canada mayflower, lowbush blueberry, whorled yellow loosestrife, poison ivy, Virginia creeper, swamp white oak, cinnamon fern, Japanese stilt grass, highbush blueberry, goldenrod species, American hazelnut, trailing dewberry, bayberry, common morning glory, fringetree and black cherry.

Unit: 465 **Classification** IB2a2 **Management Concerns**
Acreage: 1.03 Is species composition changing? No Deer Impact
Date: 06/28/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|-------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | white oak | <5' - >30' | No | | | Trash |
| Deciduous | pin oak | <5' - >30' | No | | | |
| Chamaephytes | sassafras | <5' & 5-30' | No | | | |
| Moist | American hazelnut | <5' & 5-30' | No | | | |
| Slope | arrowwood | <5' & 5-30' | No | | | |
| | catbrier | <5' | No | | | |

Comments:

This is a closed forest unit surrounded by catbrier vinelands. There is a gully on the northern end and the small stream runs along part of the western boundary. White oak and pin oak dominate the canopy, sassafras is a close third. There is a lot of American hazelnut in the unit. Regenerating species include sweetgum, red maple, black cherry, red oak, sassafras and ash species. There is a lot of catbrier in the understory and it may take over sometime in the future. Other species include Virginia creeper, poison ivy, multiflora rose, Japanese honeysuckle, lowbush blueberry, oriental bittersweet, Canada mayflower, New York fern, spicebush, fringetree and wineberry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 466 **Classification** IIB2a6 **Management Concerns**
Acreage: 0.04 Is species composition changing? No Invasive Sp.
Date: 06/28/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | >30' | No | | | |
| Deciduous | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Lianas | poison ivy | <5' & 5-30' | No | | | |
| Surface water Level | | | | | | |

Comments:

This is a small woodland unit on the north side of Moses' Mountain with some surface water. Very few plants are growing in the water, just the canopy. These are red maple, pin oak, sweetgum, black gum, and ash species. The edges are dominated by poison ivy, oriental bittersweet and catbrier. Other species include arrowwood, jewelweed, Virginia creeper, multiflora rose and Norway maple. Regenerating species include ash species.

Unit: 467 **Classification** IB2a2 **Management Concerns**
Acreage: 0.85 Is species composition changing? No Invasive Sp.
Date: 06/28/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|------------------|---------------|---------------|-------------------|--------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | Foot traffic | Dumping |
| Deciduous | white oak | >30' & 5-30' | No | | | Trash |
| Chamaephytes | arrowwood | <5' & 5-30' | No | | | Other |
| Moist | poison ivy | <5' - >30' | No | | | |
| Slope | Virginia creeper | <5' & 5-30' | No | | | |

Comments:

This is a closed forest unit that runs along Manor Road. The yellow trail cuts through the southern end of the unit. There is a nice canopy of sweetgum and white oak as well as a nice understory of arrowwood and spicebush. Vinelands are to the north and west of the unit and the same vines are present in this unit but not yet dominant. Regenerating species include ash species, black oak, black cherry and sweetgum. Other species include Japanese honeysuckle, Canada mayflower, Aralia species, ash species, blackgum, pin oak, black cherry, red maple, spicebush, garlic mustard, oriental bittersweet, sassafras, highbush blueberry, tulip poplar, goldenrod species, northern lady fern, orange-eye butterflybush and trailing dewberry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 468 **Classification** IVA2c **Management Concerns**
Acreeage: 0.33 Is species composition changing? No Deer Impact
Date: 06/29/2012 Is community structure changing? No Rare Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous | indian grass | <5' & 5-30' | No | | | |
| Deciduous | little bluestem | <5' | No | | | |
| Geophytes | switch grass | <5' | No | | | |
| Dry | purple lovegrass | <5' | No | | | |
| Slope | winged sumac | <5' & 5-30' | No | | | |
| | bayberry | <5' & 5-30' | No | | | |

Comments:

This unit consists of the most intact serpentine grassland community. There are a few rare species including the green milkweed and globe flatsedge. On the edge of this unit serpentine communities are blending with woodland species such as sweetgum and sassafras. Vinelands surround this area just beyond the mixed community. There is a real threat these communities could disappear in the near future. Other species include trailing dewberry, oriental bittersweet, common yarrow, green milkweed, grey birch, Japanese honeysuckle, paniced tick trefoil, hairy lespedeza, blueberry, common path rush, catbrier, Aralia species, poison ivy, rough Canada goldenrod, purple milkweed, toadflax, awl aster, deptford pink, common ragweed, tall letuce, pearly everlasting, roudleaf boneset, cinquefoil, Japanese stiltgrass, panic grass and flat-top goldenrod. Regenerating species include winged sumac, sweetgum, grey birch and sassafras.

Unit: 469 **Classification** IIIB1a **Management Concerns**
Acreeage: 1.06 Is species composition changing? No Deer Impact
Date: 06/29/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|-----------------|---------------|---------------|-------------------|-------------|---------------------|
| Scrub | winged sumac | <5' & 5-30' | No | | | Dumping |
| Deciduous | bayberry | <5' & 5-30' | No | | | |
| Phanerophytes | sassafras | <5' & 5-30' | No | | | |
| Dry | indian grass | <5' & 5-30' | No | | | |
| Slope | little bluestem | <5' | No | | | |
| | switch grass | <5' | No | | | |

Comments:

This is the edge of the serpentine grassland where woodland species are mixing with the serpentine community. Vinelands mostly surround this unit. Mostly regenerating trees dominate, there are few canopy trees, about 30 feet, also in the unit. Regenerating species include sweetgum, bigtooth aspen, sassafras, grey birch, winged sumac, black cherry, white oak, American beech, oak species Other species include winged sumac, Aralia species, trailing dewberry, oriental bittersweet, solidago species, lowbush blueberry, steeplebush, bayberry, moss, dandelion species, smilax, poison ivy, Virginia creeper, arrowwood, Japanese honeysuckle, tulip poplar, deertongue grass, multiflora rose, grey birch, sweetgum, sassafras, bigtooth aspen, black cherry, American beech, common buckthorn and privet.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 470 **Classification** VIIIC **Management Concerns**
Acreage: 0.55 Is species composition changing? No Invasive Sp.
Date: 06/29/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | oriental bittersweet | <5' - >30' | Yes | | | Trash |
| Deciduous | multiflora rose | <5' & 5-30' | Yes | | | |
| Lianas | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Dry | sweetgum | <5' - >30' | No | | | |
| Level | wineberry | <5' & 5-30' | Yes | | | |

Comments:

This unit is a vineland on the north edge of the property near the Seaview buildings. It is also surrounding a mixed woodland/serpentine unit. The most dominant vine is oriental bittersweet, climbing up trees and through the shrub layer. There are a few canopy trees that include sweetgum, black oak, red maple, white oak, tulip poplar and sassafras. Other species include dandelion species, Norway maple, poison ivy, Virginia creeper, rush species, winged sumac, trailing dewberry, mugwort, Aralia species, American hazelnut, sassafras, grape species, arrowwood, spicebush, hickory species, Japanese stiltgrass, deertongue grass, red maple, garlic mustard and privet. Regenerating species include sweetgum, tulip poplar, sassafras and oak species.

Unit: 471 **Classification** IIB2a6 **Management Concerns**
Acreage: 2.27 Is species composition changing? No
Date: 06/29/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sweetgum | <5' - >30' | No | | | |
| Deciduous | sassafras | <5' & 5-30' | No | | | |
| Lianas | Japanese honeysuckle | <5' | Yes | | | |
| Moist | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Slope | poison ivy | <5' & 5-30' | No | | | |
| | catbrier | <5' & 5-30' | No | | | |

Comments:

This is a woodland west of the serpentine unit. Vines cover the ground and in some areas are thick through the shrub layer. There are about 6 white pines in the northern part of the unit. Also the northern park boundary borders this unit and Seaview buildings are just outside the park. Other species include eastern white pine, Virginia creeper, trailing dewberry, multiflora rose, enchanter's nightshade, spicebush, oriental bittersweet, highbush blueberry, arrowwood, Rubus species, lowbush blueberry, Aralia species, roundleaf pyrola, mapleleaf viburnum, goldenrod species and smartweed. Regenerating species include Norway maple, American beech, pin oak and black cherry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 472 **Classification** IB2a6
Acreage: 1.14 Is species composition changing? No
Date: 06/29/2012 Is community structure changing? Yes

Management Concerns

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | Trash |
| Deciduous | catbrier | <5' & 5-30' | No | | | |
| Lianas | sassafras | <5' - >30' | No | | | |
| Moist | poison ivy | <5' & 5-30' | No | | | |
| Slope | | | | | | |

Comments:

This is a closed forest south and west of the serpentines. Sweetgum is dominant but there is also a lot of sassafras and pin oak. Other canopy species include bigtooth aspen and black cherry. Vines dominate the understory, mostly catbrier and poison ivy. Other species include cinnamon fern, Canada mayflower, Virginia creeper, spicebush, oriental bittersweet, multiflora rose, dandelion species, mapleleaf viburnum, whorled yellow loosestrife, sensitive fern, grape species, arrowwood, European buckthorn, American hazelnut, jewelweed and highbush blueberry. Regenerating species include black cherry, American beech, white oak, sweetgum, sassafras, bigtooth aspen, red maple and tulip poplar.

Unit: 473 **Classification** IB2a6
Acreage: 1.96 Is species composition changing? No
Date: 06/29/2012 Is community structure changing? No

Management Concerns

Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | |
| Deciduous | arrowwood | <5' & 5-30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | Virginia creeper | <5' | No | | | |
| Slope | poison ivy | <5' & 5-30' | No | | | |
| | Japanese honeysuckle | <5' | No | | | |

Comments:

This is a sweetgum dominated closed forest. There are a few canopy species. Mostly arrowwood and spicebush in the understory, but also a lot of poison ivy, Virginia creeper and catbrier in the herb layer. There is also a lot of ash regeneration. A large vineland is north of this unit, Moses' Mountain is to the south. Other species include garlic mustard, northern lady fern, lowbush blueberry, highbush blueberry, Canada mayflower, hayscented fern, multiflora rose, oriental bittersweet, orange-eye butterflybush and trailing dewberry. Regenerating species include ash species, Japanese angelica, sweetgum, red maple and black oak.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 474 **Classification** IIB2a6 **Management Concerns**
Acreeage: 0.35 Is species composition changing? No Deer Impact
Date: 07/02/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | green ash | <5' - >30' | No | | | Dumping |
| Deciduous | slippery elm | >30' & 5-30' | No | | | Trash |
| Lianas | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | Japanese honeysuckle | <5' | Yes | | | |
| Level | poison ivy | <5' - >30' | No | | | |
| | privet | <5' & 5-30' | Yes | | | |

Comments:

This is a small woodland between Manor Road and the yellow trail. It is just east of Moses' Mountain. The canopy is dominated by green ash and slippery elm. There are also many sweetgums, a few red maple and a few hackberry. Vinelands are to the west and south and in this unit vines are dominating the ground layer as well as beginning to ascend several canopy trees. There is some ash, elm and sweetgum regeneration, but the vines are already climbing up many of the saplings. Specifically, poison ivy is climbing up trees. Multiflora rose and Japanese honeysuckle dominate the vine and shrub layer. Other species present include white avens, spicebush, goldenrod, cool season grass, Phragmites, Virginia creeper, red maple, catbrier, arrowwood, garlic mustard, grape species, blackhaw, sweetgum, enchanter's nightshade, common winter-cress, oriental bittersweet, black oak, Norway maple, hackberry, jewelweed, cinquefoil, Japanese stiltgrass and American plantain.

Unit: 475 **Classification** IIB1a **Management Concerns**
Acreeage: 0.97 Is species composition changing? No Invasive Sp.
Date: 07/02/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------------|---------------|---------------|-------------------|--------------|---------------------|
| Scrub | smooth sumac | <5' & 5-30' | No | | Foot traffic | Trash |
| Deciduous | black locust | <5' - >30' | Yes | | | Dumping |
| Hemicryptophytes | oriental bittersweet | <5' - >30' | Yes | | | |
| Dry | poison ivy | <5' & 5-30' | No | | | |
| Slope | mugwort | <5' | No | | | |

Comments:

This is a scrubland that encompasses the top portion of Moses' Mountain. There is a lot of black locust and tree of heaven in the canopy as well as a couple mimosa, a few black cherry, slippery elm, sassafras and hackberry. Smooth sumac really dominates the area, where the soil is very dry and rocky. There are a lot of herbaceous species under the sumac, some native and some invasive. The vines have not quite taken over this area, but they are all around this unit. Species present include trailing dewberry, black swallowwort, common yarrow, Japanese honeysuckle, multiflora rose, common milkweed, red clover, privet, goldenrod species, winged sumac, white sweet clover, American plantain, English plantain, hemp dogbane, parsnip, ebony spleenwort, purple milkweed, spicebush, honey locust, common mullein, bayberry, sweetgum, Russian olive, bigtooth aspen and grey birch.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 476 **Classification** VIIIIC **Management Concerns**
Acreage: 0.52 Is species composition changing? Yes Invasive Sp.
Date: 07/02/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | multiflora rose | <5' & 5-30' | Yes | | | Trash |
| Deciduous | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Lianas | poison ivy | <5' - >30' | No | | | |
| Moist | green ash | >30' & 5-30' | No | | | |
| Slope | oriental bittersweet | <5' & 5-30' | Yes | | | |
| | grass spp. | <5' & 5-30' | No | | | |

Comments:

This is a small vineland on the west side of the yellow trail and on the northeast side of Moses' Mountain. There are several ash trees in this unit along with a few slippery elm and sweetgum. Other canopy trees are black locust, grey birch and white pine. Multiflora rose and Japanese honeysuckle dominate the shrub layer but there is also a lot of poison ivy, oriental bittersweet and grape throughout the vineland. Other species include jewelweed, oriental bittersweet, garlic mustard, privet, Virginia creeper, curly dock, Japanese honeysuckle, poison ivy, cool season grass, arrowwood, spicebush, highbush blueberry, grape, goldenrod, catbrier, Japanese stiltgrass, hackberry, cinquefoil, Virginia knotweed and deertongue grass. Regenerating species include white pine, green ash, slippery elm, sweetgum, black locust and grey birch.

Unit: 477 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.29 Is species composition changing? No
Date: 07/02/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sweetgum | <5' - >30' | No | | | Trash |
| Deciduous | spicebush | <5' - >30' | No | | | |
| Chamaephytes | poison ivy | <5' - >30' | No | | | |
| Moist | Virginia creeper | <5' | No | | | |
| Slope | | | | | | |

Comments:

This is a small woodland between the yellow trail and the north side of Moses' Mountain. Sweetgum dominates the canopy, but there are also several green ash, red maple and blackgum trees present. There is a lot of spicebush in the shrub layer but poison ivy and Virginia creeper dominate the herbaceous layer. Other species include garlic mustard, poison ivy, Virginia knotweed, Virginia creeper, carrier, jewelweed, curly dock, Christmas fern, Canada mayflower, Aralia species, black cherry, spicebush, northern lady fern, arrowwood, Japanese honeysuckle, black gum, oriental bittersweet, multiflora rose, black oak and wild sarsaparilla. Regenerating species include green ash, sweetgum, red maple and pin oak.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 478 **Classification** IIB2a2
Acresage: 0.52 Is species composition changing? No
Date: 07/02/2012 Is community structure changing? No

Management Concerns

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | sweetgum | <5' & >30' | No | | Foot traffic | Trash |
| Deciduous | red maple | <5' - >30' | No | | | Planting |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist Level | poison ivy | <5' - >30' | No | | | |

Comments:

This is a woodland unit that runs along Manor Road on the east side with a desire line from the top of Moses' Mountain connecting to the yellow trail on the southern part of the unit leading to Rockland Avenue. The canopy is dominated by mostly sweetgum and red maple but there are several ash trees as well. Spicebush dominates in the shrub layer and poison ivy covers the ground and in some places ascending the canopy trees. The southeast corner of the unit where Manor Road and Rockland Avenue intersect is covered with catbrier. At the corner of these two roads is a Blood Root Valley/Greenbelt sign and a small landscaped area. Regenerating species include green ash and sweetgum. Other species include jack in the pulpit, enchanter's nightshade, poison ivy, Virginia creeper, spicebush, Canada mayflower, multiflora rose, Japanese honeysuckle, catbrier, slippery elm, grape species, trailing dewberry, asters, American beech, American pokeweed, arrowwood, Solomon's seal, hickory species, sassafras, Japanese angelica, white pine, American holly, rhododendron, goldenrod, black cherry, cinquefoil, cool season grass, curly dock, oriental bittersweet, wineberry and garlic mustard.

Unit: 479 **Classification** VIIIIC
Acresage: 3.93 Is species composition changing? No
Date: 07/03/2012 Is community structure changing? No

Management Concerns

Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Vineland | oriental bittersweet | <5' - >30' | Yes | | Foot traffic | Dumping |
| Deciduous | multiflora rose | <5' & 5-30' | Yes | | | Trash |
| Lianas | Japanese honeysuckle | <5' & 5-30' | Yes | | | Other |
| Moist | black locust | <5' - >30' | Yes | | | |
| Slope | tree of heaven | <5' & 5-30' | Yes | | | |
| | mugwort | <5' | Yes | | | |

Comments:

This is a very large vineland covering the north, south and east slope of Moses' mountain as well as part of the west slope. There are many black locust trees as well as tree of heaven but green ash, Norway maple, sweetgum, London plane tree and black cherry are also present. There are also many other species present including parsnip, mugwort, wisteria, red clover, poison ivy, white sweet clover, garlic mustard, common path rush, spicebush, goldenrod, American pokeweed, privet, Asiatic daylily, Japanese stiltgrass, black swallowwort, white avens, catbrier, smartweed, Virginia knotweed, rough fleabane, Virginia creeper, morrows honeysuckle, porcelainberry, common mullein, common yarrow, wahoo, aster and jewelweed. Regenerating species include black locust, green ash, Norway maple, tree of heaven, sweetgum, London plane tree and black cherry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 480 **Classification** IB2a6 **Management Concerns**
Acreeage: 0.96 Is species composition changing? No Deer Impact
Date: 07/02/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | >30' & 5-30' | No | | | Dumping |
| Deciduous | sweetgum | <5' - >30' | No | | | Trash |
| Lianas | Japanese honeysuckle | <5' | Yes | | | |
| Moist | poison ivy | <5' - >30' | No | | | |
| Undulating | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a closed forest unit east of Moses' Mountain and bordering Manor Road. Red maple and sweetgum dominate the canopy and there is a lot of spicebush in the understory, but Japanese honeysuckle and poison ivy are more prevalent. Regenerating species include sweetgum, green ash, black cherry, swamp white oak, black oak and sassafras. Other species include slippery elm, red maple, catbrier, Virginia knotweed, wineberry, jewelweed, garlic mustard, multiflora rose, black birch, Canada mayflower, asters, arrowwood, pin oak, roundleaf pyrola, black cherry, Solomon's seal, shagbark hickory, violets, oriental bittersweet, goldenrod, privet, northern lady fern, Virginia creeper, blackgum, cinnamon fern, American holly, Japanese stiltgrass, mugwort, enchanter's nightshade, wild sarsaparilla, catbrier and jack in the pulpit.

Unit: 481 **Classification** IB2a2 **Management Concerns**
Acreeage: 0.31 Is species composition changing? No Deer Impact
Date: 07/03/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|--------------|---------------------|
| Closed Forest | European black alder | >30' | Yes | | Foot traffic | Dumping |
| Deciduous | sweetgum | <5' - >30' | No | | | Trash |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | red maple | >30' | No | | | |
| Slope | | | | | | |

Comments:

This is a small unit that wraps around the southern side of Moses' Mountain. It is dominated by European black alders. Other canopy trees include red maple, slippery elm, sweetgum, sassafras, London plane tree and green ash. There is a steep desire line coming from the middle of Moses Mountain running through the eastern side of this unit. The yellow trail runs along part of the southern edge of this unit. Spicebush dominates the shrub layer but other species are present. Regenerating species include blackgum. Other species in the unit are multiflora rose, garlic mustard, wineberry, jewelweed, Japanese honeysuckle, oriental bittersweet, Canada mayflower, cinnamon fern, Virginia creeper, poison ivy, privet, cool season grass, northern lady fern, Jack in the pulpit, enchanter's nightshade, asters and white avens.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 482 **Classification** IB2a2 **Management Concerns**
Acreage: 0.09 Is species composition changing? No Invasive Sp.
Date: 07/03/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | >30' & 5-30' | No | | | Trash |
| Deciduous | sweetgum | <5' - >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | Indian strawberry | <5' | Yes | | | |
| Level | Japanese honeysuckle | <5' | Yes | | | |
| | garlic mustard | <5' | Yes | | | |

Comments:

This is a small closed forest at the southern base of Moses' Mountain. Sweetgum and red maple dominate the canopy, spicebush is thick in the shrub layer and Indian strawberry, Japanese honeysuckle and garlic mustard cover the herb layer. Regenerating species include sweetgum, red maple, bigtooth aspen, pin oak and tulip poplar. Other species include garlic mustard, jewelweed, Virginia creeper, sensitive fern, poison ivy, enchanter's nightshade and trailing dewberry.

Unit: 483 **Classification** VIIC **Management Concerns**
Acreage: 0.32 Is species composition changing? No
Date: 07/03/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|--------------|---------------------|
| Vineland | New England grape | <5' & 5-30' | No | | Foot traffic | Trash |
| Deciduous | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Lianas | catbrier | <5' & 5-30' | No | | | |
| Moist | Virginia creeper | <5' & 5-30' | No | | | |
| Level | red maple | >30' | No | | | |

Comments:

This is a small vineland running along Rockland Avenue just east of the Manor Road intersection. It extends into the park along the yellow trail to an old brick pump house. There are few canopy species, most notably red maple. Regenerating species in the unit include red maple, London planetree, slippery elm, black oak, green ash and tulip poplar. Other species include lamb's quarters, oriental bittersweet, enchanter's nightshade, Virginia creeper, poison ivy, goldenrod, mugwort, New England grape, catbrier, American pokeweed, Japanese stillgrass, smartweed, jewelweed, Virginia knotweed, Asiatic daylily, Hercules club, arrowwood, wineberry, common path rush, self-heal and common elderberry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 484 **Classification** IB2a2 **Management Concerns**
Acreage: 3.12 Is species composition changing? No Invasive Sp.
Date: 07/03/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|------------------|---------------|---------------|-------------------|--------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | Foot traffic | Trash |
| Deciduous | red maple | <5' - >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | poison ivy | <5' - >30' | No | | | |
| Slope | Canada mayflower | <5' | No | | | |
| | green ash | <5' - >30' | No | | | |

Comments:

This is a closed forest unit starting just north of Rockland Avenue and continuing north to the yellow trail, east to the yellow trail and west almost to the stream. The canopy is primarily sweetgum and red maple but there is also quite a bit of green ash. Other canopy species are slippery elm, white oak and European black alder. The shrub layer is almost solely spicebush with some poison ivy extending through the shrub layer into the canopy. Canada mayflower speckles the ground layer throughout the entire unit. Other species include oriental bittersweet, jack in the pulpit, asters, Japanese honeysuckle, jewelweed, northern lady fern, goldenrods, Virginia creeper, skunk cabbage, catbrier, Canada mayflower, poison ivy, wild onion, multiflora rose, curly meadow-rue, garlic mustard, european privet, trailing dewberry, cinnamon fern and sensitive fern. Regenerating species include European black alder, green ash, slippery elm, white oak.

Unit: 485 **Classification** IB2a3 **Management Concerns**
Acreage: 0.55 Is species composition changing? No Invasive Sp.
Date: 07/03/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | European black alder | >30' | Yes | | | Trash |
| Deciduous | red maple | >30' & 5-30' | No | | | Dumping |
| Hemicryptophytes | skunk cabbage | <5' | No | | | |
| Wet | jewelweed | <5' | No | | | |
| Undulating | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a small closed forest between the western base of Moses' Mountain and the stream. The yellow trail is just to the east of the eastern border and the stream serves as the western border. The unit is characterized by several mounds and depressions, where water and wetland species dominate. Shrubs dominate the tops of the small mounds. Black alder is very dominant in the canopy, but there is also a lot of red maple and some sweetgum, skunk cabbage and jewelweed are dominant in the more wet areas while spicebush is dominant on the mounds. There is standing water in some places. Cinnamon fern is thick on the eastern side of the unit. Regenerating species include green ash and oak species. Other species in the unit include poison ivy, cinnamon fern, privet, catbrier, enchanter's nightshade, violets, multiflora rose, northern lady fern, Jack in the pulpit, Canada mayflower, Japanese honeysuckle, arrowwood, early meadow rue, sensitive fern, garlic mustard, oriental bittersweet and Virginia creeper.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 486 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.31 Is species composition changing? No
Date: 07/03/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|--------------|---------------------|
| Woodland | sweetgum | <5' & >30' | No | | Foot traffic | Dumping |
| Deciduous | red maple | >30' & 5-30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | arrowwood | <5' & 5-30' | No | | | |
| Slope | Japanese honeysuckle | <5' | Yes | | | |
| | multiflora rose | <5' & 5-30' | Yes | | | |

Comments:

This is a small woodland surrounding the intersection of the blue and yellow trail just northwest of Moses' Mountain. Sweetgum and red maple dominate the canopy with spicebush, arrowwood and multiflora rose throughout the shrub layer. There is a lot of Japanese honeysuckle on the ground. Regenerating species include sassafras, sweetgum, tree-of-heaven, black cherry and black oak. Other species include Virginia creeper, oriental bittersweet, poison ivy, arrowwood, Canada mayflower, hayscented fern, catbrier, trailing dewberry, common path rush, blackgum and jewelweed.

Unit: 487 **Classification** IIIB1a **Management Concerns**
Acreage: 0.24 Is species composition changing? No
Date: 07/03/2012 Is community structure changing? Yes
 Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Scrub | devils walking stick | <5' & 5-30' | Yes | | | |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Lianas | fox grape | <5' & 5-30' | No | | | |
| Moist | catbrier | <5' & 5-30' | No | | | |
| Slope | Japanese honeysuckle | <5' & 5-30' | Yes | | | |

Comments:

This is a small scrubland just east of the stream, near Moses' Mountain. Devil's walking stick dominates the unit with a lot of spicebush present as well. Grape, catbrier and Japanese honeysuckle are taking over the spicebush and climbing up some of the walking stick. There are a few red maples and black cherry trees on the edge of this unit. Other species present include arrowwood, Canada mayflower, Virginia creeper, poison ivy, garlic mustard, cinnamon fern, hayscented fern and New York fern. Regenerating species include red maple and black cherry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 488 **Classification** IB2a2 **Management Concerns**
Acreeage: 0.51 Is species composition changing? No
Date: 07/03/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' & >30' | No | | | |
| Deciduous | red maple | <5' - >30' | No | | | |
| Chamaephytes | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | spicebush | <5' & 5-30' | No | | | |
| Slope | Japanese honeysuckle | <5' | Yes | | | |
| | oriental bittersweet | <5' - >30' | Yes | | | |

Comments:

This is a closed forest unit that starts at the western base of Moses' Mountain and extends east just across the yellow trail. It extends almost the entire western side of Moses' Mountain. Sweetgum and red maple dominate the canopy throughout, but there is a dense section of blackgum at the northern end of the unit. Multiflora rose and spicebush are also dominant and vines (Japanese honeysuckle and oriental bittersweet) are taking over the herb layer. Other species include spicebush, multiflora rose, Virginia creeper, poison ivy, jewelweed, cool season grass, arrowwood, common path rush, Japanese stiltgrass, Hercules' club, garlic mustard, violets, catbrier, porcelainberry, American pokeweed, Canada mayflower, trailing dewberry, Japanese barberry, ebony spleenwort, enchanter's nightshade, white avens, mugwort, Phragmites, wineberry, goldenrod, sensitive fern and Virginia knotweed. Regenerating species include blackgum, sweetgum, red maple, black oak, pin oak, black cherry, sassafras, green ash, white mulberry and American beech.

Unit: 489 **Classification** IVA3a1 **Management Concerns**
Acreeage: 0.09 Is species composition changing? No Invasive Sp.
Date: 07/10/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|---------------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous | Japanese stiltgrass | <5' | Yes | Other | | |
| Deciduous | cool season grass | <5' | No | | | |
| Geophytes | mugwort | <5' | Yes | | | |
| Moist | skunk cabbage | <5' | No | | | |
| Level | American pokeweed | <5' | No | | | |
| | stinging nettle | <5' | No | | | |

Comments:

This is a small herbaceous unit just north of Rockland Avenue where the stream crosses under the road. The stream runs through the eastern side of the unit and a vineland separates the herbaceous unit from the road. There is a lot of Japanese stiltgrass and other cool season grasses. There are a couple green ash trees on the edge and many young saplings and seedlings in the unit. A large vineland is to the west and could easily spread in to this unit. Species in this unit include privet, jewelweed, stinging nettle, garlic mustard, common dock, smartweed, deertongue grass, sensitive fern, spicebush, wood sorrel, porcelainberry, trailing dewberry, Phragmites, bittersweet nightshade, multiflora rose, Japanese honeysuckle, oriental bittersweet, wineberry, summer grape, white avens, American hog peanut, grape species, halberd leaved tearthumb. Regenerating species include green ash, black locust, red maple and sweetgum.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 490 **Classification** VIIIC **Management Concerns**
Acreage: 0.23 Is species composition changing? No Invasive Sp.
Date: 07/10/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | wineberry | <5' & 5-30' | Yes | Other | | |
| Deciduous | oriental bittersweet | <5' - >30' | Yes | | | |
| Lianas | Japanese honeysuckle | <5' | Yes | | | |
| Moist Level | Japanese angelica | <5' & 5-30' | Yes | | | |

Comments:

This is a small vineland just west of the stream and just north of Manor Road. Part of it is dominated by wineberry growing on spicebush with a lot of oriental bittersweet mixed in and another part has less wineberry and more grape species covering Japanese angelica. Regenerating species include ash species and Japanese angelica. Other species present in the unit include Japanese honeysuckle, multiflora rose, oriental bittersweet, garlic mustard, poison ivy, spicebush, Indian strawberry, hayscented fern, Virginia creeper, Jack in the pulpit, trailing dewberry, skunk cabbage, sensitive fern, Hercules' club, asters, privet, enchanter's nightshade, meadow rue and hackberry.

Unit: 491 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.11 Is species composition changing? No
Date: 07/10/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | green ash | <5' & >30' | No | | | |
| Deciduous | slippery elm | >30' & 5-30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist Level | garlic mustard | <5' | Yes | | | |
| | Japanese honeysuckle | <5' | Yes | | | |
| | poison ivy | <5' - >30' | No | | | |

Comments:

This is an edge unit along Rockland Avenue. It has slippery elm and green ash in the canopy and the understory is primarily spicebush. There is also a lot of garlic mustard, Japanese honeysuckle and poison ivy. It is a fairly diverse and disturbed unit. Regenerating species include green ash and American beech. Slippery elm, tulip poplar and red maple are also present in the canopy. Other species present in this unit include Japanese honeysuckle, oriental bittersweet, poison ivy, Virginia creeper, garlic mustard, spicebush, multiflora rose, arrowwood, jewelweed, enchanter's nightshade, bittersweet nightshade, violets, Solomon's seal, asters, hackberry, blackhaw and New England grape.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|-----------------|------------|----------------------------------|-------|--|-----------------------------------|
| Unit: | 492 | Classification | IB2a3 | | <u>Management Concerns</u> |
| Acreege: | 0.54 | Is species composition changing? | Yes | | Invasive Sp. |
| Date: | 07/12/2012 | Is community structure changing? | No | | Deer Impact |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | white pine | >30' & 5-30' | No | | | Trash |
| Mixed | bigtooth aspen | >30' | No | | | |
| Hemicryptophytes | garlic mustard | <5' | Yes | | | |
| Dry | mugwort | <5' | Yes | | | |
| Slope | poison ivy | <5' & 5-30' | No | | | |

Comments:

This is a mixed closed forest on the edge of Rockland Avenue. White pine is fairly dominant in the canopy but there is not much regenerating. The most dominant deciduous tree is the bigtooth aspen. Other deciduous trees include tulip poplar, sweetgum, black oak, white oak, red maple and slippery elm. The understory is predominantly herbs and the road edge is covered with mugwort and Japanese knotweed. There is a significant amount of ash regeneration under five feet. Other dominant herbs and vines include poison ivy, Virginia creeper, Japanese honeysuckle and enchanter's nightshade. Other species in the unit include poison ivy, garlic mustard, American pokeweed, Virginia creeper, wineberry, multiflora rose, spicebush, English ivy, arrowwood, sensitive fern, roundleaf pyrola, wood sorrel, enchanter's nightshade, devil's walking stick, asters, trailing dewberry, mugwort, cool season grasses, catbrier, blackhaw, white avens, goldenrod and Norway maple. Regenerating species include white pine, tulip poplar, bigtooth aspen, red maple, slippery elm, green ash and sweetgum.

| | | | | | |
|-----------------|------------|----------------------------------|--------|--|-----------------------------------|
| Unit: | 493 | Classification | IIB2a6 | | <u>Management Concerns</u> |
| Acreege: | 0.29 | Is species composition changing? | No | | Invasive Sp. |
| Date: | 07/12/2012 | Is community structure changing? | Yes | | Deer Impact |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | black locust | >30' & 5-30' | Yes | | | |
| Deciduous | periwinkle | <5' | Yes | | | |
| Lianas | sensitive fern | <5' | No | | | |
| Moist | spicebush | <5' & 5-30' | No | | | |
| Slope | arrowwood | <5' & 5-30' | No | | | |

Comments:

This is a small woodland off Rockland Avenue. Black locust is dominant in the canopy and periwinkle carpets the understory. Other canopy trees include black cherry, slippery elm, green ash, pin oak, red maple and sassafras. Other species present include arrowwood, spicebush, sensitive fern, American pokeweed, multiflora rose, northern lady fern, Virginia creeper, poison ivy, garlic mustard, enchanter's nightshade, jack-in-the-pulpit, trailing dewberry and Virginia knotweed. Regenerating species in this unit include red maple, green ash, pin oak, sassafras and slippery elm.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 494 **Classification** VIIIIC
Acreeage: 0.16 Is species composition changing? No
Date: 07/12/2012 Is community structure changing? No

Management Concerns

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Vineland | poison ivy | <5' - >30' | No | | | Trash |
| Deciduous | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Lianas | Virginia creeper | <5' & 5-30' | No | | | |
| Wet | arrowwood | <5' & 5-30' | No | | | |
| Level | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a small edge vineland off Rockland Avenue. A drainage canal curves into the park here and this unit is between the road and the stream. A few living canopy trees are green ash and slippery elm. Poison ivy has taken over this area with a lot of Japanese honeysuckle also present. Other species present include Virginia creeper, jewelweed, skunk cabbage, arrowwood, garlic mustard, spicebush, stinging nettle, cool season grass, goldenrods, privet, multiflora rose, grape species, Phragmites, mugwort, curly dock, oriental bittersweet, porcelainberry, Virginia knotweed, Pennsylvania blackberry, parsnip, giant ragweed, catbrier and bittersweet nightshade. Regenerating species include green ash, hackberry and slippery elm.

Unit: 495 **Classification** IIIB1a
Acreeage: 0.27 Is species composition changing? No
Date: 07/12/2012 Is community structure changing? No

Management Concerns

Invasive Sp.
Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Scrub | viburnum spp. | <5' & 5-30' | No | | | |
| Deciduous | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Hemicryptophytes | jewelweed | <5' & 5-30' | No | | | |
| Moist | curly dock | <5' & 5-30' | No | | | |
| Level | Phragmites | <5' & 5-30' | No | | | |

Comments:

This is a diverse edge unit. It is part scrub part vineland. One border is Rockland Avenue and there is a lot of Phragmites along the road. There is a lot of viburnum species and jewelweed throughout. Oriental bittersweet is very dominant in some places. There is one green ash on the eastern edge and a couple tree of heaven along the road. Other species include Jack in the pulpit, warm season grass, curly dock, Japanese honeysuckle, cool season grass, garlic mustard, skunk cabbage, goldenrod, spicebush, mugwort, Pennsylvania blackberry, silky dogwood and multiflora rose. Regenerating species include tree of heaven, sweetgum and green ash.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 496 **Classification** IB2a2 **Management Concerns**
Acreage: 1.71 Is species composition changing? No
Date: 07/12/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | green ash | >30' | No | | | |
| Deciduous | red maple | >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | Virginia creeper | <5' | No | | | |
| Undulating | | | | | | |

Comments:

This is a large ash/maple closed forest. It is between the stream and the southwest curve of Rockland Avenue. Spicebush is extremely thick and cave like in the shrub layer. The herb layer is sparse in most areas, but is covered in Virginia creeper and ash seedlings intermittently. Other species include Jack in the pulpit, arrowwood, Japanese honeysuckle, poison ivy, trailing dewberry, privet, American pokeweed, smartweed, garlic mustard, multiflora rose, Canada mayflower, jewelweed, hayscented fern, green ash, red maple, black cherry, sweetgum, black oak, American beech and European beech. Regenerating species include black cherry, green ash and sweetgum.

Unit: 497 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.11 Is species composition changing? No
Date: 07/12/2012 Is community structure changing? No
 Invasive Sp.
 Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | >30' | No | | | |
| Deciduous | black cherry | <5' - >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | Japanese honeysuckle | <5' | Yes | | | |
| Level | garlic mustard | <5' | No | | | |
| | grape spp. | <5' & 5-30' | No | | | |

Comments:

This is a small woodland east of Rockland Avenue and the periwinkle unit. A lot of red maple and black cherry are in the canopy, but there is also green ash, sweetgum and white mulberry. Spicebush is thick in the shrub layer and Japanese honeysuckle and garlic mustard carpet the herb layer. There is also a lot of wineberry, grape, common path rush and Virginia creeper. Other species include Jack in the pulpit, enchanter's nightshade, oriental bittersweet, Virginia creeper, wineberry, arrowwood, American pokeweed, sensitive fern and multiflora rose. Regenerating species include sweetgum and black cherry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 498 **Classification** VIIIIC **Management Concerns**
Acreage: 1.08 Is species composition changing? No
Date: 07/13/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | catbrier | <5' - >30' | No | | | Dumping |
| Deciduous | Japanese honeysuckle | <5' & 5-30' | Yes | | | Trash |
| Lianas | pennsylvania blkbery | <5' & 5-30' | No | | | |
| Moist | spicebush | <5' & 5-30' | No | | | |
| Undulating | bigtooth aspen | >30' & 5-30' | No | | | |
| | Hercules' club | <5' & 5-30' | Yes | | | |

Comments:

This is a vineland just west of the stream. There is a lot of bigtooth aspen in the canopy and a fair amount of spicebush in the shrub layer. The vines are climbing both the spicebush and the bigtooth aspen. Other species include multiflora rose, arrowwood, oriental bittersweet, Virginia creeper, American pokeweed, trailing dewberry, wineberry, jewelweed, Japanese stiltgrass, winged sumac, Japanese angelica, tree of heaven, sweetgum, black cherry and red maple. Regenerating species include sweetgum and black oak.

Unit: 499 **Classification** IB2a2 **Management Concerns**
Acreage: 0.20 Is species composition changing? No
Date: 07/13/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | >30' | No | | | |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | catbrier | <5' & 5-30' | No | | | |
| Moist | Canada mayflower | <5' | No | | | |
| Undulating | poison ivy | <5' | No | | | |

Comments:

This is a small maple forest unit just west of the stream and surrounded by catbrier vinelands to the west, north and south. There is a fair amount of spicebush in the shrub layer, but parts are open. Catbrier is starting to move in and climb up the spicebush. The herb layer is deckled with Canada mayflower and poison ivy. Other species include sweetgum, cinnamon fern, skunk cabbage, arrowwood, cool season grass, lowbush blueberry, trailing dewberry, meadow rue, Japanese honeysuckle, violets, Virginal creeper, sensitive fern, Japanese stiltgrass, hayscented fern, American pokeweed, multiflora rose, a little ash regeneration, garlic mustard and smartweed.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 500 **Classification** IIB2a6 **Management Concerns**
Acreage: 1.64 Is species composition changing? Yes Invasive Sp.
Date: 07/13/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|-------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | black cherry | <5' - >30' | No | | | |
| Deciduous | red maple | >30' & 5-30' | No | | | |
| Lianas | catbrier | <5' & 5-30' | No | | | |
| Moist | poison ivy | <5' - >30' | No | | | |
| Slope | spicebush | <5' & 5-30' | No | | | |
| | Japanese angelica | <5' & 5-30' | Yes | | | |

Comments:

This is a large woodland in the southern part of Blood Root Valley that is transitioning into a catbrier vineland. Black cherry and red maple are dominant canopy species but catbrier covers all of the understory and ascends many trees. Other species include Virginia creeper, Canada mayflower, hayscented fern, trailing dewberry, arrowwood and asters.

Unit: 501 **Classification** IIB2a6 **Management Concerns**
Acreage: 0.25 Is species composition changing? No
Date: 07/13/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sassafras | <5' - >30' | No | | | |
| Deciduous | black oak | >30' | No | | | |
| Lianas | catbrier | <5' & 5-30' | No | | | |
| Moist | spicebush | <5' | No | | | |
| Slope | | | | | | |

Comments:

This is a small sassafras woodland in the middle of several catbrier vinelands. Other canopy trees include black and white oak and red maple. Catbrier has moved in and is beginning to take over the shrub layer and is climbing up some trees. There is some spicebush but not over five feet. There is a lot of black cherry regeneration and some sweetgum and sassafras regeneration as well as a little bit of green ash regeneration. Other species include trailing dewberry, American pokeweed, arrowwood, Canada mayflower, Virginia creeper, poison ivy, goldenrod, Devil's walking stick and hayscented fern.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 502 **Classification** IIB2a1 **Management Concerns**
Acreage: 0.41 Is species composition changing? No Invasive Sp.
Date: 07/13/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|-------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | Japanese angelica | <5' & 5-30' | Yes | | | |
| Deciduous | bigtooth aspen | >30' | No | | | |
| Phanerophytes | sassafras | <5' - >30' | No | | | |
| Moist | catbrier | <5' & 5-30' | No | | | |
| Slope | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a small woodland dominated by Japanese angelica. It is just east of Rockland Avenue and south of the mixed pine unit. Japanese angelica not only dominates the lower canopy but also the shrub layer and herb layer. There are also several aspens and sassafras in the canopy. Spicebush and catbrier are the next most dominant species in the unit. Other species include oriental bittersweet, trailing dewberry, Virginia creeper, poison ivy, Canada mayflower, Japanese honeysuckle, garlic mustard, arrowwood, Solomon's seal, asters, Virginia creeper, red maple, sassafras, black oak, black cherry and green ash. Regenerating species include green ash and black cherry.

Unit: 503 **Classification** IB2a6 **Management Concerns**
Acreage: 0.45 Is species composition changing? No Invasive Sp.
Date: 07/13/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red oak | >30' | No | | | |
| Deciduous | red maple | >30' & 5-30' | No | | | |
| Lianas | catbrier | >30' & 5-30' | No | | | |
| Moist | Japanese honeysuckle | <5' | No | | | |
| Slope | Virginia creeper | <5' | No | | | |

Comments:

This is a closed forest east of Rockland Avenue. Red oak dominates the canopy but catbrier dominates the understory and is likely to transform this unit into a vineland. A lot of units surrounding this one are also catbrier vinelands. There is some good ash regeneration at the seedling level. Other species include asters, hayscented fern, spicebush, Canada mayflower, arrowwood, multiflora rose, trailing dewberry, roundleaf pyrola, poison ivy, Solomon's seal, Japanese angelica, American beech, black oak, black cherry, sassafras, black birch. Regenerating species include green ash, red oak, black cherry and red maple.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 504 **Classification** IVB1b **Management Concerns**
Acreage: 1.09 Is species composition changing? No
Date: 07/13/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|-----------------|-------------------------|---------------|---------------|-------------------|-------------|---------------------|
| Riparian Buffer | smartweed | <5' | No | | | Dumping |
| Deciduous | jewelweed | <5' | No | | | Trash |
| Hemicyptophytes | oriental bittersweet | <5' & 5-30' | No | | | Erosion |
| Surface water | catbrier | <5' & 5-30' | No | | | |
| Slope | halbred leaved tearthum | <5' | No | | | |
| | spicebush | <5' & 5-30' | No | | | |

Comments:

This unit is a stream. It runs from north of the park, all the way to the south border where it passes under Rockland Avenue and continues through La Tourette. Species on the stream bank and over hanging the stream include smartweed, stinging nettle, jewelweed, privet, spicebush, Virginia waterleaf, Solomon's seal, meadow rue, Northern lady fern, oriental bittersweet, multiflora rose, cool season grass, Japanese stiltgrass, skunk cabbage, porcelainberry, enchanter's nightshade, American pokeweed, Japanese honeysuckle, arrowwood, red maple, Norway maple, American beech and European black alder. This stream is classified as an F-3 stream using the Rosgen classification system.

Unit: 505 **Classification** IB2a6 **Management Concerns**
Acreage: 1.03 Is species composition changing? No
Date: 07/16/2012 Is community structure changing? Yes
 Deer Impact
 Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sassafras | <5' - >30' | No | | | |
| Deciduous | black cherry | <5' - >30' | No | | | |
| Lianas | catbrier | <5' & 5-30' | No | | | |
| Moist | Japanese honeysuckle | <5' | Yes | | | |
| Slope | garlic mustard | <5' | Yes | | | |

Comments:

This is a small closed forest east of Rockland Avenue. Catbrier dominates up to about 4 feet and also ascends a few trees. Sassafras and black cherry dominate the canopy but there is also a few green ash, black oak, shagbark hickory and bigtooth aspen. Other species present include spicebush, white oak, poison ivy, Virginia creeper, periwinkle, Japanese angelica, oriental bittersweet, arrowwood, enchanter's nightshade, wineberry and trailing dewberry. Regenerating species include red oak, white oak, green ash, Japanese angelica, sassafras and black locust.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 506 **Classification** VIIIC **Management Concerns**
Acreage: 0.46 Is species composition changing? No Invasive Sp.
Date: 07/16/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Deciduous | trailing dewberry | <5' & 5-30' | No | | | |
| Lianas | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Moist | tree of heaven | >30' & 5-30' | Yes | | | |
| Slope | | | | | | |

Comments:

This is a Japanese honeysuckle vineland just off Rockland Avenue, north of the vinca unit and south of the pines. Not many trees remain in the canopy. One black locust on the edge of the road, one green ash in the middle and several young tree of heavens. Other than honeysuckle, there is a lot of trailing dewberry and oriental bittersweet. Other species include spicebush, mugwort, poison ivy, Japanese stiltgrass, white mulberry, American beech, red oak, black locust, Rubus species, slippery elm, green ash, grape species, Jack in the pulpit, American pokeweed and garlic mustard.

Unit: 507 **Classification** IB2a2 **Management Concerns**
Acreage: 0.82 Is species composition changing? No Invasive Sp.
Date: 07/16/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | black cherry | <5' - >30' | No | | | Dumping |
| Deciduous | Hercule's club | <5' & 5-30' | Yes | | | Trash |
| Chamaephytes | Japanese honeysuckle | <5' | Yes | | | |
| Moist | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Slope | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a closed forest unit between the honeysuckle vineland and another large vineland. The canopy is fairly diverse with a fair amount of black cherry, green ash and Hercules club. Other canopy trees present include red maple, red oak, slippery elm and American beech. Hercules club and Japanese honeysuckle dominate the herb layer. Other species present include enchanter's nightshade, trailing dewberry, Virginia creeper, poison ivy, multiflora rose, Canada mayflower, catbrier, Virginia creeper, cool season grass, arrowwood, porcelainberry, American pokeweed, garlic mustard, wineberry, tree of heaven, Jack in the pulpit, red maple and green ash. Regenerating species include ash species, sassafras and black oak.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|-----------------|------------|----------------------------------|-------|--|-----------------------------------|
| Unit: | 508 | Classification | IB2a6 | | <u>Management Concerns</u> |
| Acreage: | 1.19 | Is species composition changing? | No | | Invasive Sp. |
| Date: | 07/16/2012 | Is community structure changing? | Yes | | Deer Impact |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | white oak | >30' & 5-30' | No | | | |
| Deciduous | sweetgum | <5' - >30' | No | | | |
| Lianas | catbrier | <5' & 5-30' | No | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a closed forest unit dominated by white oak. It starts near the junction of the two streams and continues northwest toward the road. The small stream runs through the eastern part of the unit. There is a lot of catbrier in the understory and it is thicker and more mixed with invasive vines along the stream. This unit borders a sassafras/catbrier unit on its western side. Other species present include oriental bittersweet, cool season grass, cinnamon fern, New York fern, arrowwood, poison ivy, trailing dewberry, lowbush blueberry, American hazelnut, Virginia creeper, spicebush and multiflora rose. Regenerating species include red maple, sweetgum, sassafras and black cherry.

| | | | | | |
|-----------------|------------|----------------------------------|--------|--|-----------------------------------|
| Unit: | 509 | Classification | IIB2a6 | | <u>Management Concerns</u> |
| Acreage: | 0.36 | Is species composition changing? | Yes | | Deer Impact |
| Date: | 07/17/2012 | Is community structure changing? | Yes | | |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | bigtooth aspen | >30' | No | | | |
| Deciduous | catbrier | <5' & 5-30' | No | | | |
| Lianas | | | | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a small woodland east of Rockland Avenue. It is a dense thicket of bigtooth aspen with a very dense layer of catbrier in the understory. Other species present include Japanese honeysuckle, Canada mayflower, Japanese stiltgrass, jewelweed, poison ivy, trailing dewberry, red maple and sassafras.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 510 **Classification** IB2a6 **Management Concerns**
Acreage: 0.66 Is species composition changing? No Deer Impact
Date: 07/17/2012 Is community structure changing? Yes Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | <5' - >30' | No | Foundation | | |
| Deciduous | black cherry | <5' & 5-30' | No | | | |
| Lianas | catbrier | <5' & 5-30' | No | | | |
| Moist | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Undulating | | | | | | |

Comments:

This is a closed forest unit just to the east of the white pine unit that runs along Rockland Avenue. Red maple and black cherry dominate the canopy and catbrier dominates the understory. Catbrier and oriental bittersweet are beginning to take over some canopy trees. There is an old stone and brick foundation on the southwestern edge of the unit. Other species present include poison ivy, multiflora rose, spicebush, arrowwood and Virginia creeper. Green ash and hickory species are regenerating.

Unit: 511 **Classification** IB2a6 **Management Concerns**
Acreage: 0.80 Is species composition changing? No
Date: 07/17/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | <5' - >30' | No | | | |
| Deciduous | pin oak | <5' - >30' | No | | | |
| Lianas | poison ivy | <5' - >30' | No | | | |
| Moist | Virginia creeper | <5' | No | | | |
| Slope | | | | | | |

Comments:

This is a closed forest unit east of Rockland Avenue about 100 yards south of the blue trail. Red maple and pin oak dominate the canopy while poison ivy and Virginia creeper dominate the forest floor. The poison ivy is climbing up several of the canopy trees. Other canopy trees include sweetgum, sassafras, white oak, American beech and bigtooth aspen. Other species present include American pokeweed, arrowwood, American holly, cool season grasses, hayscented fern, catbrier, Canada mayflower, highbush blueberry, American hazelnut, Solomon's seal and goldenrods. Regenerating species include sassafras, green ash, red maple, pin oak, sweetgum, and black cherry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|-----------------|------------|----------------------------------|-------|--|-----------------------------------|
| Unit: | 512 | Classification | IB2a6 | | <u>Management Concerns</u> |
| Acreage: | 0.49 | Is species composition changing? | Yes | | Deer Impact |
| Date: | 07/17/2012 | Is community structure changing? | Yes | | Invasive Sp. |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | bigtooth aspen | >30' & 5-30' | No | | | |
| Deciduous | white oak | >30' & 5-30' | No | | | |
| Lianas | Japanese honeysuckle | <5' | Yes | | | |
| Moist | poison ivy | <5' | No | | | |
| Slope | Virginia creeper | <5' | No | | | |
| | highbush blueberry | 5'-30' | No | | | |

Comments:

This is a small closed forest unit east of Rockland Avenue and south of the blue trail. The canopy is fairly diverse, but bigtooth aspen and white oak seem to be the most prevalent. Other species in the canopy are sweetgum, pin oak, red maple and black cherry. There are a few highbush blueberry shrubs in the understory, but Japanese honeysuckle, poison ivy and Virginia creeper really dominate this layer. There are a few different vinelands surrounding this unit, and it is likely they are all spreading into this area. Trailing dewberry, Canada mayflower, spicebush, oriental bittersweet, American holly, goldenrods, mugwort, cinquefoil, arrowwood, vinca and multiflora rose are also present. Regenerating species include ash species, black cherry, pin oak and sweetgum.

| | | | | | |
|-----------------|------------|----------------------------------|-------|--|-----------------------------------|
| Unit: | 513 | Classification | VIIIC | | <u>Management Concerns</u> |
| Acreage: | 0.56 | Is species composition changing? | No | | Invasive Sp. |
| Date: | 07/17/2012 | Is community structure changing? | No | | Deer Impact |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Vineland | oriental bittersweet | <5' - >30' | Yes | | | |
| Deciduous | multiflora rose | <5' & 5-30' | Yes | | | |
| Lianas | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Moist | Japanese angelica | <5' & 5-30' | Yes | | | |
| Slope | sassafras | <5' - >30' | No | | | |

Comments:

This is a vineland that runs from Rockland Avenue east, just south of the blue trail. Dominant species are oriental bittersweet, multiflora rose and Japanese honeysuckle. Most canopy trees, which includes red maple, bigtooth aspen, sassafras, sweetgum, green ash, slippery elm and black cherry, are covered in oriental bittersweet and multiflora rose. There is also a dense area of Japanese angelica trees towards the middle of the vineland. Other species present include spicebush, Japanese knotweed, mugwort, Japanese stiltgrass, Virginia creeper, poison ivy, Virginia knotweed, catbrier, porcelainberry, deertongue grass, trailing dewberry, wineberry, arrowwood and vinca. Regenerating species include pin oak and sassafras.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 514 **Classification** VIIIIC **Management Concerns**
Acreage: 0.36 Is species composition changing? No Invasive Sp.
Date: 07/17/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | oriental bittersweet | <5' - >30' | Yes | | | |
| Deciduous | catbrier | <5' - >30' | No | | | |
| Lianas | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | grape spp. | <5' & 5-30' | No | | | |
| Slope | | | | | | |

Comments:

This is a vineland stretching from Rockland Avenue east on the north side of the blue trail. There are a few canopy trees being overcome by the vines; pin oak, tree of heaven, black oak, American catalpa, black cherry, green ash, red maple and Norway maple. Other species present include American pokeweed, wineberry, spicebush, poison ivy, Virginia creeper, Japanese stiltgrass, Virginia knotweed, deertongue grass, goldenrod, trailing dewberry, white avens, mugwort, garlic mustard, aster species, honewort, violet species and Japanese honeysuckle.

Unit: 515 **Classification** VIIIIC **Management Concerns**
Acreage: 0.62 Is species composition changing? No
Date: 07/18/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | catbrier | <5' & 5-30' | No | | | Trash |
| Deciduous | poison ivy | <5' | No | | | |
| Lianas | porcelainberry | <5' & 5-30' | Yes | | | |
| Moist | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Level | jewelweed | <5' | No | | | |

Comments:

This is a catbrier vineland just off of Brielle Avenue and just north of Rockland Avenue. The canopy trees include slippery elm, sweetgum, white mulberry and tree-of-heaven. Catbrier is the most dominant vine, but grape, poison ivy and Japanese honeysuckle are also pretty prevalent. There is also a fair amount of herbaceous growth in some spots. Species also present include jewelweed, vinca, mugwort, cool season grass, white avens, pilewort, arrowwood, spicebush, smartweed, clover, bittersweet nightshade, goldenrod, Virginia creeper, curly dock, multiflora rose, American pokeweed and oriental bittersweet.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|------------------|------------|----------------------------------|-------|--|-----------------------------------|
| Unit: | 516 | Classification | VIIIC | | <u>Management Concerns</u> |
| Acreeage: | 2.02 | Is species composition changing? | No | | Invasive Sp. |
| Date: | 07/23/2012 | Is community structure changing? | No | | |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Vineland | catbrier | <5' - >30' | No | | | Trash |
| Deciduous | Japanese honeysuckle | <5' | Yes | | | |
| Lianas | poison ivy | <5' - >30' | No | | | |
| Moist | sassafras | <5' - >30' | No | | | |
| Undulating | spicebush | <5' & 5-30' | No | | | |
| | arrowwood | <5' & 5-30' | No | | | |

Comments:

This is a large vineland that extends north, halfway through this panhandle-like part of the park. It starts at the corner of Brielle and Rockland Avenues and extends east along Rockland up to the caretaker's house and further east in the interior part of the park. Catbrier is the dominant vine, it covers spicebush and other shrubs as well as topping some living and dead canopy trees. Other prominent vines include Japanese honeysuckle, poison ivy, black bindweed and Virginia creeper. Most of the canopy trees are sassafras and a large percent of them are dead. Other species present include Japanese angelica, grape species, mugwort, smartweed, American pokeweed, jewelweed, goldenrod, porcelainberry, lamb's quarters, enchanter's nightshade, trailing dewberry, oriental bittersweet, hayscented fern, wineberry, multiflora rose, Solomon's seal species and elderberry.

| | | | | | |
|------------------|------------|----------------------------------|-------|--|-----------------------------------|
| Unit: | 517 | Classification | IB2a2 | | <u>Management Concerns</u> |
| Acreeage: | 1.97 | Is species composition changing? | No | | Deer Impact |
| Date: | 07/19/2012 | Is community structure changing? | No | | Other |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | Dumping |
| Deciduous | spicebush | <5' & 5-30' | No | | | Trash |
| Chamaephytes | poison ivy | <5' - >30' | No | | | |
| Moist | Japanese honeysuckle | <5' | Yes | | | |
| Undulating | arrowwood | <5' & 5-30' | No | | | |

Comments:

This is a large closed forest stretching almost from Brielle Avenue east into the park. The northern border has a fence that separates old Seaview hospital buildings from the park. The canopy is almost solely sweetgum but there are a few sassafras, tulip poplar and pin oak mixed in. The understory has a nice dense layer of spicebush. Poison ivy is all over the floor and climbs up many of the sweetgum trees. Japanese honeysuckle also covers a lot of the forest floor. There is a large old encampment ("management concern:other") near the northwest corner of the unit. In places where a canopy opening has been created catbrier has started to take over the understory. Other species include royal fern, oriental bittersweet, Virginia creeper, wineberry, hayscented fern, multiflora rose, garlic mustard, cinnamon fern, Japanese angelica, trailing dewberry, Indian pipe, Solomon's seal species, northern lady fern, Canada mayflower, cool season grass, red maple, sweet pepperbush and aster species. Regenerating species include tulip poplar, black cherry, sweetgum and oak species.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 518 **Classification** IIB2a3 **Management Concerns**
Acreage: 1.13 Is species composition changing? No
Date: 07/20/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|----------------|---------------------|
| Woodland | Norway maple | <5' - >30' | Yes | Road | Vehicle access | |
| Mixed | sassafras | <5' - >30' | No | Fence | Other | |
| Hemicytopytes | mugwort | <5' & 5-30' | Yes | Foundation | | |
| Moist | multiflora rose | <5' & 5-30' | Yes | | | |
| Slope | Japanese honeysuckle | <5' | Yes | | | |
| | poison ivy | <5' - >30' | No | | | |

Comments:

This is the caretaker's house, its driveway and its grounds. There is a lot of Norway maple in the canopy and regenerating. The rest of the canopy is a combination of sassafras, white mulberry, spruce, American beech, tree of heaven, Japanese angelica, slippery elm, American holly and cedar species. The understory is a diverse array of vines, herbs and shrubs. It includes wineberry, spicebush, Virginia knotweed, Japanese stiltgrass, American pokeweed, garlic mustard, aster species, clover species, smartweed, curly dock, Phragmites, American plantain, dandelion, oriental bittersweet, porcelainberry and Asiatic daylily. There is also a lawn and a vegetable garden in the unit. Species regenerating include sassafras, slippery elm, sweetgum and Norway maple.

Unit: 519 **Classification** IB2a6 **Management Concerns**
Acreage: 0.61 Is species composition changing? Yes
Date: 07/24/2012 Is community structure changing? Yes
 Deer Impact
 Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | |
| Deciduous | poison ivy | <5' - >30' | No | | | |
| Lianas | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | Virginia creeper | <5' | No | | | |
| Undulating | Japanese honeysuckle | <5' | Yes | | | |

Comments:

This is a small closed forest unit east of the sweetgum forest. This unit has the same sweetgum canopy, but the understory has been invaded by vines and exotic species. Poison ivy climbs up nearly all of the sweetgums, killing a few, and also carpets the forest floor. The other dominant vines are Virginia creeper, Japanese honeysuckle and catbrier. Multiflora rose is also dominant. Other species in the canopy include pin oak, white oak and red maple and species regenerating include sweetgum, American beech, black cherry and white oak. Japanese angelica, spicebush, arrowwood, garlic mustard, wineberry, oriental bittersweet, trailing dewberry, sensitive fern and hayscented fern are also present.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|---------------|------------|----------------------------------|-------|--|-----------------------------------|
| Unit: | 520 | Classification | IB2a6 | | <u>Management Concerns</u> |
| Acres: | 0.19 | Is species composition changing? | Yes | | Deer Impact |
| Date: | 07/19/2012 | Is community structure changing? | Yes | | Invasive Sp. |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | sweetgum | <5' - >30' | No | | | |
| Mixed | pin oak | <5' - >30' | No | | | |
| Lianas | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Moist | poison ivy | <5' - >30' | No | | | |
| Undulating | Virginia creeper | <5' & 5-30' | No | | | |
| | black bindweed | <5' | Yes | | | |

Comments:

This is a small woodland unit north of Rockland Avenue, almost due north of the caretaker's house. The canopy is a mix of sweetgum, pin oak, black oak, black cherry and sassafras. There are very few shrubs and none above about five feet. Various vines carpet the forest floor, but there is also quite a bit of tree regeneration. The species regenerating are sassafras, hickory species, white oak, white pine, black cherry and black oak. There are about four young white pines in the unit. Vinelands surround the unit. Spicebush, arrowwood, garlic mustard, goldenrod, American pokeweed, multiflora rose, Canada mayflower, trailing dewberry, deertongue grass, cool season grass, oriental bittersweet, smartweed, catbrier, wineberry and blackhaw are also present. Other species minimally present in the canopy include American beech, Japanese angelica and red maple.

| | | | | | |
|---------------|------------|----------------------------------|--------|--|-----------------------------------|
| Unit: | 521 | Classification | IIB2a6 | | <u>Management Concerns</u> |
| Acres: | 0.36 | Is species composition changing? | Yes | | Deer Impact |
| Date: | 07/19/2012 | Is community structure changing? | Yes | | Invasive Sp. |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | sweetgum | <5' - >30' | No | | | |
| Deciduous | sassafras | <5' - >30' | No | | | |
| Lianas | poison ivy | <5' - >30' | No | | | |
| Moist | catbrier | <5' & 5-30' | No | | | |
| Undulating | multiflora rose | <5' & 5-30' | Yes | | | |
| | Japanese honeysuckle | <5' & 5-30' | Yes | | | |

Comments:

This is a small woodland on the park boundary near the Seaview buildings. The canopy is mostly sweetgum and sassafras but there is also some red maple, Norway maple, black oak, pin oak, black cherry, American beech and tree-of-heaven. The understory is mostly vines. Poison ivy is climbing almost every tree. Species regenerating include red maple, black oak, black locust, sassafras, black cherry, pin oak and Norway maple. Canada mayflower, hayscented fern, new York fern, garlic mustard, arrowwood, spicebush, Virginia creeper, American pokeweed, trailing dewberry, grape species, Japanese barberry, Japanese knotweed, deertongue grass, enchanter's nightshade, orange eye butterfly bush, jewelweed, Japanese angelica and wineberry are also present.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 522 **Classification** III B1a **Management Concerns**
Acreage: 0.30 Is species composition changing? No Deer Impact
Date: 07/23/2012 Is community structure changing? Yes Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Scrub | wineberry | <5' & 5-30' | Yes | | | |
| Deciduous | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Lianas | poison ivy | <5' - >30' | No | | | |
| Moist | American pokeweed | <5' & 5-30' | No | | | |
| Depression | multiflora rose | <5' & 5-30' | Yes | | | |

Comments:

This is a small scrubland northwest of the caretaker's house. It is in a bowl-like depression that seems manmade, but old. There are a few canopy trees remaining. These are Norway maple, black cherry, black locust and a dying white pine. Wineberry dominates the unit with Japanese honeysuckle a close second. There is a little bit of sassafras, sweetgum, black cherry, red maple, slippery elm, American beech, black locust and pin oak regeneration. Other species present include catbrier, Japanese barberry, spicebush, oriental bittersweet, arrowwood, black bindweed, Virginia creeper, tree of heaven, warm season grass, mugwort, bayberry, trailing dewberry, cool season grass, clover and Virginia knotweed.

Unit: 523 **Classification** IB2a2 **Management Concerns**
Acreage: 0.16 Is species composition changing? No Deer Impact
Date: 07/23/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | white oak | >30' | No | | | Trash |
| Deciduous | slippery elm | >30' & 5-30' | No | | | Dumping |
| Chamaephytes | arrowwood | <5' | No | | | |
| Moist | jewelweed | <5' | No | | | |
| Level | goldenrod | <5' | No | | | |
| | poison ivy | <5' - >30' | No | | | |

Comments:

This is a small closed forest near the corner of Rockland Avenue and Brielle Avenue. White oak and slippery elm dominate the canopy and arrowwood dominates the understory. There is also some spicebush in the understory. Large catbrier vinelands nearly surround the unit and could easily invade this unit. Other species present include catbrier, spicebush, mugwort, clover, Japanese honeysuckle, enchanter's nightshade, oriental bittersweet, wineberry, Japanese knotweed, Virginia creeper, periwinkle, cool season grass. Regenerating species include sweetgum.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 524 **Classification** III B1a **Management Concerns**
Acreage: 0.50 Is species composition changing? Yes Invasive Sp.
Date: 07/24/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Scrub | multiflora rose | <5' & 5-30' | Yes | | | |
| Deciduous | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Lianas | black locust | <5' - >30' | Yes | | | |
| Moist | black cherry | <5' & >30' | | | | |
| Slope | | | | | | |

Comments:

This is a scrubland just south of the park border with Seaview buildings and a bit north of the caretaker's house. There are a couple black locust and black cherry trees, but vines have toppled several of both of these species. Multiflora rose and Japanese honeysuckle is very dense through the understory. Other species include catbrier, devil's walking stick, pin oak, tree of heaven, Virginia creeper, poison ivy, spicebush, arrowwood and American pokeweed. Regenerating species include sassafras, black cherry, black locust.

Unit: 525 **Classification** VIII C **Management Concerns**
Acreage: 0.39 Is species composition changing? No Invasive Sp.
Date: 07/24/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | catbrier | <5' - >30' | No | | | |
| Deciduous | wineberry | <5' & 5-30' | No | | | |
| Lianas | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | oriental bittersweet | <5' - >30' | Yes | | | |
| Slope | English ivy | <5' - >30' | Yes | | | |
| | Japanese honeysuckle | <5' | Yes | | | |

Comments:

This is a catbrier vineland north and east of the caretaker's house. There are a few remaining canopy trees (black locust, sassafras and black cherry) but most have vines growing up them Other species include American pokeweed, Virginia creeper, poison ivy, tree of heaven, Norway maple, white mulberry, arrowwood and spicebush. Regenerating species include sassafras and black cherry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 526 **Classification** III B1a **Management Concerns**
Acreage: 3.65 Is species composition changing? No
Date: 07/25/2012 Is community structure changing? Yes Deer Impact
 Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Scrub | spicebush | <5' & 5-30' | No | | | |
| Deciduous | multiflora rose | <5' & 5-30' | Yes | | | |
| Chamaephytes | poison ivy | <5' - >30' | No | | | |
| Moist | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Undulating | catbrier | <5' - >30' | No | | | |
| | black locust | >30' & 5-30' | Yes | | | |

Comments:

This is a large scrub of mainly multiflora rose spicebush and catbrier. It is on the northern park border near old Seaview buildings. Some canopy trees are present, these include slippery elm, black locust, tree of heaven, sweetgum and black cherry. Only oak species, sweetgum and black cherry are regenerating. Other species include Virginia creeper, wineberry, arrowwood, garlic mustard, American pokeweed, pilewort, oriental bittersweet, white snake root, jewelweed, grape, Virginia knotweed, violets, cool season grass, trailing dewberry, Canada mayflower, catbrier, Pennsylvania blackberry, and Aralia species.

Unit: 527 **Classification** VIII C **Management Concerns**
Acreage: 0.36 Is species composition changing? No
Date: 07/25/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Deciduous | multiflora rose | <5' & 5-30' | Yes | | | |
| Lianas | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Moist | catbrier | <5' & 5-30' | No | | | |
| Slope | American pokeweed | <5' & 5-30' | No | | | |
| | poison ivy | <5' - >30' | No | | | |

Comments:

This is a vineland off Rockland Avenue next to the Phragmites unit. There are a few canopy trees, including swamp white oak, sweetgum, black cherry, black locust and tree-of-heaven. They are mainly on the edges of the unit, leaving the interior of the unit to the vines, poison ivy climbs to the top of all trees. There is a lot of American pokeweed in addition to the major vines, which are Japanese honeysuckle, catbrier and poison ivy. Other species include mugwort, path rush, English ivy, jewelweed, devil's walking stick, goldenrod., bittersweet nightshade, Virginia creeper, pilewort, smartweed, Phragmites, common dock and common mullein. Regenerating species include sweetgum and black locust.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 528 **Classification** IVB1c **Management Concerns**
Acreage: 0.14 Is species composition changing? No
Date: 07/25/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|-----------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Aquatic (fresh) | Phragmites | <5' & 5-30' | Yes | | | |
| Deciduous | jewelweed | <5' & 5-30' | No | | | |
| Geophytes | | | | | | |
| Wet | | | | | | |
| Level | | | | | | |

Comments:

This is a Phragmites unit off Rockland Avenue, just west of where the road divide ends/begins. There is one silver maple on the roadside in this unit. Otherwise there are no canopy trees. Most herbaceous species present exist just on the road side. Other species include mugwort, Japanese honeysuckle, catbrier, smartweed, pilewort, morning glory, English plantain, Queen Anne's lace, American pokeweed, goldenrod, poison ivy, Virginia creeper, elderberry and common dock.

Unit: 529 **Classification** IIB2a6 **Management Concerns**
Acreage: 0.22 Is species composition changing? Yes
Date: 07/25/2012 Is community structure changing? Yes
 Invasive Sp.
 Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|-----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | slippery elm | 5'-30' | No | | | |
| Deciduous | tree of heaven | <5' & 5-30' | Yes | | | |
| Lianas | grape spp. | <5' & 5-30' | No | | | |
| Moist | multiflora rose | <5' & 5-30' | Yes | | | |
| Slope | | | | | | |

Comments:

This is a small woodland between the Phragmites unit and the blue trailhead. It borders Rockland Avenue. There are a few slippery elm trees as well as tree of heaven. Grape covers everything but the trees. Multiflora rose is also prominent, under the grape mostly. Other species present include bittersweet nightshade, jewelweed, Virginia creeper, pilewort, dandelion, mugwort, spicebush, elderberry, Japanese honeysuckle, poison ivy, American catalpa, oriental bittersweet. A few other canopy species present include black cherry, white ash and bigtooth aspen.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 530 **Classification** IIB2a3 **Management Concerns**
Acreeage: 0.04 Is species composition changing? Yes Invasive Sp.
Date: 07/27/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|-----------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | Norway maple | <5' - >30' | Yes | | | |
| Deciduous | American pokeweed | <5' & 5-30' | No | | | |
| Hemicyptophytes | Japanese stiltgrass | <5' | Yes | | | |
| Moist | Devils walking stick | <5' & 5-30' | Yes | | | |
| Undulating | sweetgum | <5' | No | | | |

Comments:

This is a small break in the spicebush/multiflora rose scrub. It used to be some sort of small structure evident on the aerial as well as the 1970's topo map. The structure no longer exists, but there is a pile of rotten wood and old shingles on the ground. There are two Norway maples in the middle of the unit. Two older Norway maples, two black cherry and a couple tree of heaven on the edge of the unit. The rest of the vegetation is a mix of American pokeweed, Aralia seedlings, warm season grass, Japanese stiltgrass and black nightshade. Other species also present include bittersweet nightshade, Japanese honeysuckle, wineberry, spicebush, poison Ivy, oriental bittersweet, catbrier, multiflora rose, grape species, Virginia creeper, Virginia knotweed, jewelweed, Phragmites, trailing dewberry, Japanese knotweed, enchanter's nightshade and lady's thumb. Regenerating species include sweetgum, slippery elm, black locust, black cherry and sassafras.

Unit: 531 **Classification** IIB2a6 **Management Concerns**
Acreeage: 0.12 Is species composition changing? No Deer Impact
Date: 07/27/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sweetgum | <5' - >30' | No | | | |
| Deciduous | pin oak | <5' & >30' | No | | | |
| Lianas | poison ivy | <5' - >30' | No | | | |
| Moist | Virginia creeper | <5' | No | | | |
| Undulating | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a small woodland north of the Phragmites unit. The catbrier vineland extends between the two units. Dominant canopy trees are sweetgum and pin oak but white oak, black oak, black cherry, red maple, white ash and sassafras are also present and regenerating. Slippery elm is also regenerating. Poison Ivy grows up almost all trees and Virginia creeper makes a carpet on the forest floor. There is also some spicebush and arrowwood in the shrub layer. Other species include round leaf pyrola, Canada mayflower, arrowwood, multiflora rose, deertongue grass, trailing dewberry, Aralia species, Japanese honeysuckle, wineberry, oriental bittersweet, catbrier, grape, American pokeweed and Japanese stiltgrass.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 532 **Classification** IIB2a2 **Management Concerns**
Acreage: 3.57 Is species composition changing? Yes Invasive Sp.
Date: 07/27/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|-------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | black locust | <5' - >30' | Yes | | | |
| Deciduous | sassafras | <5' - >30' | No | | | |
| Chamaephytes | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | Japanese angelica | <5' & 5-30' | Yes | | | |
| Undulating | | | | | | |

Comments:

This is a large woodland transitioning into a scrub or vineland. It is south of the border that is shared with old Seaview buildings. Other species include tree of heaven, black locust, spicebush, poison ivy, Virginia creeper, enchanter's nightshade, smartweed, American pokeweed, oriental bittersweet, Japanese honeysuckle, arrowwood, wineberry, black bindweed and catbrier.

Unit: 533 **Classification** IIB2a1 **Management Concerns**
Acreage: 0.12 Is species composition changing? Yes Invasive Sp.
Date: 07/27/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|-------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | black cherry | >30' | No | | | |
| Deciduous | Japanese angelica | <5' & 5-30' | Yes | | | |
| Phanerophytes | sassafras | <5' - >30' | No | | | |
| Moist | catbrier | <5' & 5-30' | No | | | |
| Undulating | | | | | | |

Comments:

This is a small woodland south of the black locust/multiflora rose unit. Black cherry dominates the canopy right now, but there is a lot of Japanese angelica on the floor and in the 5-30' height category. There is also a lot of sassafras and oak species (pin, black and white), as well as some red maple. Catbrier is starting to move in from the surrounding vinelands. Species also present include poison ivy, Virginia creeper, deertongue grass, Japanese honeysuckle, oriental bittersweet, trailing dewberry, multiflora rose, spicebush, morning glory and cool season grass. Regenerating species include sassafras, black locust, Norway maple, black cherry, slippery elm, black oak and white oak.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 534 **Classification** IB2a2 **Management Concerns**
Acreeage: 0.27 Is species composition changing? No Invasive Sp.
Date: 07/31/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | pin oak | <5' - >30' | No | | | Trash |
| Deciduous | sweetgum | <5' - >30' | No | | | |
| Chamaephytes | wineberry | <5' & 5-30' | Yes | | | |
| Moist | spicebush | <5' & 5-30' | No | | | |
| Slope | poison ivy | <5' - >30' | No | | | |
| | catbrier | <5' & 5-30' | No | | | |

Comments:

This is a small closed forest unit between the Blue trail and the northern border of the park. There are several vinelands or transitioning vinelands around it. Pin oak and sweetgum are the most dominant canopy species, but there is also a significant amount of black cherry and sassafras. Other canopy trees present in minimal amounts include black oak, slippery elm and Japanese angelica. The understory is a mix of wineberry, spicebush, catbrier and poison ivy, with the latter two species climbing several canopy trees. The northern edge of the unit is a large multiflora rose/black locust scrub/woodland. That area has a lot more multiflora rose, Japanese honeysuckle, bindweed and Virginia creeper in the herb layer. Species also present in this unit include trailing dewberry, Virginia creeper, multiflora rose, bindweed, goldenrod, oriental bittersweet, cool season grass, deertongue grass, American pokeweed, mugwort, smartweed, Japanese boxwood, cinnamon fern and arrowwood, black cherry, eastern white pine, sassafras, devil's walking stick and slippery elm. Regenerating species include sassafras, slippery elm, sweetgum, pin oak, black oak, black locust and red maple.

Unit: 535 **Classification** IB1ba **Management Concerns**
Acreeage: 0.82 Is species composition changing? No Invasive Sp.
Date: 07/30/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | pin oak | <5' - >30' | No | | | Trash |
| Mixed | white pine | <5' - >30' | No | | | Dumping |
| Lianas | Japanese honeysuckle | <5' | Yes | | | |
| Moist | poison ivy | <5' - >30' | No | | | |
| Slope | catbrier | <5' & 5-30' | No | | | |
| | multiflora rose | <5' & 5-30' | Yes | | | |

Comments:

This is a closed forest that is a mix of oak (mostly pin) and white pine. The northern edge of the unit is the park boundary and just outside of the park are old Seaview buildings. Japanese honeysuckle and poison ivy dominate the herb layer and there is a lot of catbrier and multiflora rose in the shrub layer. There are several vinelands, mostly of catbrier, around this unit. Species also present include oriental bittersweet, wineberry, spicebush, Virginia creeper, catbrier, Devil's walking stick, trailing dewberry, garlic mustard, path rush, cool seasoned grass, highbush blueberry, goldenrod, smartweed, common mullein, Japanese stiltgrass, American pokeweed, sassafras, black cherry, white oak and black oak. Regenerating species include sassafras, pin oak, black oak and black cherry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 536 **Classification** VIIIIC **Management Concerns**
Acreage: 0.45 Is species composition changing? No Invasive Sp.
Date: 07/30/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | catbrier | <5' & 5-30' | No | | | |
| Deciduous | pennsylvania blkbery | <5' & 5-30' | No | | | |
| Lianas | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Moist | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Slope | sassafras | <5' - >30' | No | | | |
| | sweetgum | <5' - >30' | No | | | |

Comments:

This is a large catbrier vineland. The Blue trail serves as the southern border on the eastern side. The trail edges are covered in Japanese stiltgrass and a few other herbaceous species such as mugwort, goldenrod and deertongue grass. Catbrier is by far the most dominant vine. It is thick up to about 6-7' and is climbing up some trees. The trees that are present include bigtooth aspen, pin oak, black cherry, eastern white pine, black locust and red maple. Other species present include poison ivy, Virginia creeper, trailing dewberry, multiflora rose, wineberry, goldenrod, Aralia species, path rush, smartweed, Virginia knotweed, mugwort, panicledleaf tick trefoil, deertongue grass, Japanese stiltgrass, arrowwood, spicebush, American hazelnut and garlic mustard. Regenerating species include black cherry, black locust, sassafras and sweetgum.

Unit: 537 **Classification** IB2a6 **Management Concerns**
Acreage: 0.17 Is species composition changing? No Invasive Sp.
Date: 07/30/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|--------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | Foot traffic | |
| Deciduous | pin oak | <5' & >30' | No | | | |
| Lianas | catbrier | <5' & 5-30' | No | | | |
| Moist | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Slope | poison ivy | <5' - >30' | No | | | |
| | wineberry | <5' & 5-30' | Yes | | | |

Comments:

This is a small closed forest with catbrier vinelands on all sides. The blue trail runs through it. There is mostly sweetgum and pin oak in the canopy and a lot of catbrier, wineberry and multiflora rose in the understory. The trail sides are covered in Japanese stiltgrass and path rush. Other species include oriental bittersweet, garlic mustard, Virginia creeper, cinnamon fern, arrowwood, American pokeweed, multiflora rose, catbrier, goldenrod, Virginia knotweed, deertongue grass, panicledleaf tick trefoil, common yarrow, highbush blueberry, Japanese angelica, Devil's walking stick, lowbush blueberry, American hazelnut, sweetgum, black cherry, sassafras, bigtooth aspen, black locust, pin oak and black oak. Regenerating species include black oak, American beech, sweetgum, sassafras, black cherry, red maple, pin oak, white oak and black locust.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 538 **Classification** VIIIIC **Management Concerns**
Acreage: 0.25 Is species composition changing? No Invasive Sp.
Date: 07/31/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|-----------------|---------------|---------------|-------------------|--------------|---------------------|
| Vineland | catbrier | <5' & 5-30' | No | | Foot traffic | |
| Deciduous | spicebush | <5' | No | | | |
| Lianas | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | jewelweed | <5' | No | | | |
| Depression | grape spp. | <5' & 5-30' | No | | | |

Comments:

This is a catbrier vineland north of the blue trail. It starts on a knoll, but mostly consumes a depression. The catbrier climbs on spicebush and itself. All trees present are on the edges of the vineland except one sweetgum in the middle and a few Devil's walking stick scattered throughout. Other species include Japanese honeysuckle, spicebush, American pokeweed, wineberry, morning glory, hollow-stemmed Joe-Pye weed, moss, Virginia creeper, oriental bittersweet, poison ivy, arrowwood, elderberry, Japanese stiltgrass, black oak, sweetgum, slippery elm, white oak and red maple.

Unit: 539 **Classification** VIIIIC **Management Concerns**
Acreage: 2.72 Is species composition changing? No Invasive Sp.
Date: 08/06/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | catbrier | <5' - >30' | No | | | |
| Deciduous | Japanese honeysuckle | <5' | Yes | | | |
| Lianas | multiflora rose | >30' | Yes | | | |
| Moist | wild yam | <5' - >30' | No | | | |
| Undulating | bigtooth aspen | >30' & 5-30' | No | | | |
| | black cherry | <5' - >30' | No | | | |

Comments:

This is a very extensive catbrier vineland, almost in the middle of the eastern portion of Blood Root Valley. There are some canopy trees throughout, but not very close together. They are primarily bigtooth aspen and some sassafras and black cherry. There are some spots with shrubs such as multiflora rose, spicebush and even winged sumac but the catbrier covers all of them. Other species include oriental bittersweet, poison ivy, Virginia creeper, Japanese stiltgrass, red maple, hollow-stemmed Joe-Pye weed, arrowwood, sweetgum, sassafras, chicken grape, porcelainberry, American pokeweed, bittersweet nightshade, jewelweed, cool season grass, clover, wineberry, trailing dewberry, Pennsylvania blackberry, fox grape and rush species. Regenerating species include black cherry and sassafras.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 540 **Classification** IIB2a6 **Management Concerns**
Acreage: 1.02 Is species composition changing? Yes Invasive Sp.
Date: 08/06/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | bigtooth aspen | >30' & 5-30' | No | | | |
| Deciduous | sassafras | <5' - >30' | No | | | |
| Lianas | catbrier | <5' - >30' | No | | | |
| Moist | Japanese honeysuckle | <5' | Yes | | | |
| Slope | | | | | | |

Comments:

This is a sassafras and bigtooth aspen woodland that has been taken over by catbrier. This unit is just to the east of the large catbrier vineland and it has certainly started extending into this area. The catbrier is dense up to about 4.5-5' and it has started ascending the aspen and sassafras trees. Other species include arrowwood, multiflora rose, oriental bittersweet, grape, spicebush, Japanese stiltgrass and American pokeweed. Regenerating species include sassafras, sweetgum and oak species.

Unit: 541 **Classification** IIB2a1 **Management Concerns**
Acreage: 0.44 Is species composition changing? Yes Invasive Sp.
Date: 08/08/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sassafras | <5' - >30' | No | | | Foot traffic |
| Deciduous | sweetgum | <5' - >30' | No | | | |
| Phanerophytes | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Moist | catbrier | <5' & 5-30' | No | | | |
| Slope | oriental bittersweet | <5' & 5-30' | Yes | | | |
| | poison ivy | <5' - >30' | No | | | |

Comments:

This is a woodland that runs along the blue trail, mostly on the southern side and is in between the large catbrier vineland and the multiflora rose scrub. Sweetgum and sassafras dominate the canopy and shrub layer. Other canopy species include red maple, black locust and scarlet oak. Japanese honeysuckle, catbrier and multiflora rose are moving into the herb layer. Other species include American hazelnut, cinquefoil, poison ivy, Virginia creeper, Japanese stiltgrass, spicebush, path rush, panicleleaf tick trefoil, cinnamon fern, deertongue grass, goldenrod, wineberry, American pokeweed, arrowwood, Phragmites, Japanese barberry, trailing dewberry, northern lady fern, Virginia knotweed, mugwort, Devil's walking stick and smartweed. Regenerating species include black cherry, sweetgum, sassafras, red maple, slippery elm and black oak.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 542 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.09 Is species composition changing? No Invasive Sp.
Date: 08/09/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | Norway maple | <5' - >30' | Yes | | | Dumping |
| Deciduous | black walnut | >30' & 5-30' | No | | | Trash |
| Chamaephytes | multiflora rose | <5' | Yes | | | |
| Moist | Japanese honeysuckle | <5' | Yes | | | |
| Slope | spicebush | <5' & 5-30' | No | | | |
| | oriental bittersweet | <5' - >30' | Yes | | | |

Comments:

This is a small woodland unit off Rockland Avenue and just east of the caretaker's house. Norway maple and black walnut dominate the canopy, but hackberry, slippery elm, black oak and black locust are also present. There is a lot of multiflora rose and spicebush in the shrub layer; Japanese honeysuckle trails all along the herb layer. Other species include cool season grass, mugwort, trailing dewberry, poison ivy, Virginia creeper, American pokeweed, wineberry, garlic mustard, grape, jewelweed, enchanter's nightshade, Devil's walking stick, periwinkle, pilewort and mock orange. Regenerating species include black oak, Norway maple and slippery elm.

Unit: 543 **Classification** IVA1a4 **Management Concerns**
Acreage: 0.05 Is species composition changing? No Invasive Sp.
Date: 08/06/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous | Phragmites | <5' & 5-30' | Yes | | | |
| Deciduous | | | | | | |
| Geophytes | | | | | | |
| Wet | | | | | | |
| Depression | | | | | | |

Comments:

This is a small Phragmites unit in the north eastern section of the large catbrier unit. The soil is quite wet and there are no canopy trees around or within this unit. There is a bit of jewelweed growing amongst the Phragmites and a couple of hollow-stemmed Joe-Pye weeds.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|-----------------|------------|----------------------------------|--------|--|-----------------------------------|
| Unit: | 544 | Classification | IIB2a6 | | <u>Management Concerns</u> |
| Acreage: | 0.28 | Is species composition changing? | Yes | | Invasive Sp. |
| Date: | 08/09/2012 | Is community structure changing? | Yes | | Deer Impact |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | sweetgum | <5' - >30' | No | | | Trash |
| Deciduous | silver maple | <5' & 5-30' | No | | | |
| Lianas | grape spp. | <5' - >30' | No | | | |
| Wet | spicebush | <5' & 5-30' | No | | | |
| Depression | mugwort | <5' & 5-30' | Yes | | | |
| | oriental bittersweet | <5' - >30' | Yes | | | |

Comments:

This is a woodland off Brielle Avenue. It is very diverse. The trees are mostly on the east edge of the unit, leaving a lot of area uncovered. Grape is climbing all over everything. There is a lot of spicebush under the grape and a lot of mugwort closer to the road. Other species include enchanter's nightshade, Asiatic daylily, poison ivy, Virginia creeper, Japanese honeysuckle, white avens, spicebush, American pokeweed, mugwort, wineberry, garlic mustard, catbrier, multiflora rose, Virginia knotweed, trailing dewberry, jewelweed, cool season grass, bittersweet nightshade, sensitive fern, cinnamon fern, goldenrod, arrowwood, Queen Anne's lace, giant ragweed, morning glory, Norway maple, white mulberry, hackberry, tree of heaven, and slippery elm. Regenerating species include sweetgum.

| | | | | | |
|-----------------|------------|----------------------------------|-------|--|-----------------------------------|
| Unit: | 545 | Classification | IIB1d | | <u>Management Concerns</u> |
| Acreage: | 0.25 | Is species composition changing? | No | | |
| Date: | 08/09/2012 | Is community structure changing? | No | | |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | black locust | <5' - >30' | Yes | | Parking lot | Trash |
| Mixed | kentucky bluegrass | <5' | No | | | |
| Geophytes | mugwort | <5' | Yes | | | |
| Moist | wineberry | <5' | Yes | | | |
| Level | | | | | | |

Comments:

This is the Nature Center "overflow parking" at the corner of Brielle Avenue and Rockland Avenue. It is mostly Kentucky bluegrass and mugwort but there are several different canopy trees on the edge of the mowed grass. These are a willow, a red oak, silver maple, mockernut hickory, black locust, slippery elm and a couple of eastern white pines. Clover, cool season grass, pilewort, dandelion, grape, Japanese honeysuckle, poison ivy, Japanese knotweed, garlic mustard, common plantain, Virginia creeper, smooth sumac, Queen Anne's lace, chicory, field thistle, Asiatic daylily, cinquefoil, common dock, Phragmites, bittersweet nightshade and parsnip are also present. There is a little bit of black locust and black cherry regeneration.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 546 **Classification** IIB1c **Management Concerns**
Acreeage: 0.21 Is species composition changing? No Invasive Sp.
Date: 08/13/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|-------------------|---------------|---------------|-------------------|--------------|---------------------|
| Woodland | white pine | >30' & 5-30' | No | | Foot traffic | Trash |
| Mixed | black locust | <5' - >30' | Yes | | | |
| Hemicryptophytes | black cherry | <5' - >30' | No | | | |
| Moist | Japanese knotweed | <5' & 5-30' | Yes | | | |
| Slope | poison ivy | <5' - >30' | No | | | |

Comments:

This is a small woodland extending into the park from the corner of Brielle and Rockland Avenues. The trail that connects the Nature Center and the Recreation Center dissects the unit. There are several white pines and a few junipers. Other canopy species include black locust, black cherry, pin oak, red maple, sassafras and white oak. The understory is mostly herbaceous with a few regenerating species. These include sweetgum, black locust, pin oak, sassafras, tree of heaven, hackberry and black cherry. Wineberry, American pokeweed, Virginia creeper, yellow wood sorrel, trailing dewberry, cool season grass, American hazelnut, catbrier, winged sumac, mugwort, garlic mustard, spicebush, multiflora rose, enchanter's nightshade, warm season grass, Asiatic daylily, arrowwood, Japanese honeysuckle and porcelainberry are also present.

Unit: 547 **Classification** VIIIIC **Management Concerns**
Acreeage: 1.15 Is species composition changing? No Invasive Sp.
Date: 08/13/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|--------------|---------------------|
| Vineland | porcelainberry | <5' & 5-30' | Yes | | Foot traffic | |
| Deciduous | mugwort | <5' & 5-30' | Yes | | | |
| Lianas | field thistle | <5' & 5-30' | Yes | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a porcelainberry vineland that surrounds a small woodland just west of Brielle Avenue and north of Rockland Avenue. The trail that connects the Nature Center and Recreation Center cuts through the eastern side. The vineland is mostly porcelainberry but there are also a lot of herbaceous species, such as field thistle, pilewort, giant ragweed and a few goldenrod species. Other species present include arrowwood, bittersweet nightshade, path rush, common dock, Phragmites, Japanese honeysuckle, spicebush, bindweed, Japanese stiltgrass, Virginia creeper, poison ivy, multiflora rose, Asiatic daylily, mullein, oriental bittersweet, American pokeweed, Pennsylvania blackberry, jewelweed, catbrier, wineberry, smartweed, winged sumac, warm season grass, cool season grass and wild yam. There is a little bit of slippery elm regeneration.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 548 **Classification** VIIIC **Management Concerns**
Acreage: 0.67 Is species composition changing? No Invasive Sp.
Date: 08/13/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | catbrier | <5' & 5-30' | No | | | |
| Deciduous | jewelweed | <5' | No | | | |
| Lianas | | | | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a catbrier vineland north of Rockland Avenue, west of Brielle Avenue and south of the Recreation Center. A stream flows through the southern edge. There is one tree of heaven and one black cherry in the unit and many red maples along the edge. It is almost solely catbrier, except on the edge where some other species are present, and there is a fair amount of purple thistle and pilewort. Other species include American pokeweed, poison ivy, multiflora rose, spicebush, smartweed, common dock, trailing dewberry, black swallowwort, field bindweed, porcelainberry, Japanese stiltgrass, Japanese knotweed, elderberry, Pennsylvania blackberry, path rush, Virginia creeper, wineberry, ragweed and Japanese honeysuckle. Regenerating species include sassafras, red maple and tree of heaven.

Unit: 549 **Classification** IIB2a6 **Management Concerns**
Acreage: 0.18 Is species composition changing? No Invasive Sp.
Date: 08/13/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | <5' - >30' | No | | | |
| Deciduous | slippery elm | >30' & 5-30' | No | | | |
| Lianas | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Moist | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Slope | porcelainberry | <5' & 5-30' | Yes | | | |
| | poison ivy | <5' - >30' | No | | | |

Comments:

This is a small woodland surrounded by a porcelainberry vineland. Major canopy trees include red maple, slippery elm and black walnut. Sassafras and white mulberry are also present. Vines dominate the herb layer but there is also some spicebush and arrowwood present. Other species include Virginia creeper, field bindweed, garlic mustard, American pokeweed, goldenrod, jewelweed, multiflora rose, common dock, white snake root, enchanter's nightshade, catbrier, wineberry, Asiatic daylily and mugwort.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 550 **Classification** IB2a3 **Management Concerns**
Acreage: 0.45 Is species composition changing? Yes Deer Impact
Date: 08/15/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | pin oak | >30' & 5-30' | No | | | Trash |
| Deciduous | cinnamon fern | <5' | No | | | |
| Hemicryptophytes | poison ivy | <5' & 5-30' | No | | | |
| Moist | sweetgum | <5' & 5-30' | No | | | |
| Slope | | | | | | |

Comments:

This is a pin oak closed forest just north of Rockland Avenue. There is not any pin oak regenerating, but a lot of sweetgum regeneration and some sassafras, red maple, black cherry and white oak regeneration as well. Other canopy species include sassafras, tulip poplar, white oak and black oak. The understory is mostly dominated by cinnamon fern and poison ivy. Hayscented fern, catbrier, Virginia creeper, grape, warm season grass, trailing dewberry, highbush blueberry, arrowwood, spicebush, Japanese honeysuckle, lowbush blueberry, Canada mayflower, American pokeweed, goldenrod, pilewort and white avens are also present.

Unit: 551 **Classification** IB2a1 **Management Concerns**
Acreage: 0.25 Is species composition changing? No Deer Impact
Date: 08/15/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | Trash |
| Deciduous | red maple | <5' & 5-30' | No | | | |
| Phanerophytes | poison ivy | <5' - >30' | No | | | |
| Moist | cinnamon fern | <5' | No | | | |
| Slope | | | | | | |

Comments:

This is a sweetgum closed forest north of the pin oak unit. There is a lot of red maple regeneration. Poison ivy and cinnamon fern dominate the understory, with the former climbing up most trees. There is also some bigtooth aspen, black cherry, tulip poplar and black oak in the canopy. Sassafras, sweetgum, black cherry, black oak and red maple are regenerating. Species also present include arrowwood, catbrier, Virginia creeper, lowbush blueberry, highbush blueberry, spicebush, trailing dewberry, Canada mayflower, white avens and roundleaf pyrola.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 552 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.66 Is species composition changing? No Deer Impact
Date: 08/15/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | <5' - >30' | No | | | Trash |
| Deciduous | poison ivy | <5' & 5-30' | No | | | |
| Chamaephytes | cinnamon fern | <5' | No | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a red maple woodland north of Rockland Avenue. There is a bit of maple regeneration in the understory. Other canopy species include pin oak, sweetgum, sassafras and black oak. Sweetgum, tulip poplar, sassafras, black cherry, black oak, pin oak and white oak are all regenerating. There is not a dense shrub layer, but arrowwood, spicebush, highbush blueberry and lowbush blueberry are all present. Other species include sensitive fern, Japanese barberry, Canada mayflower, Japanese honeysuckle, catbrier, Solomon's seal species, four flower yellow loosestrife, wild yam, hayscented fern, New York fern, American pokeweed, white avens and roundleaf pyrola.

Unit: 553 **Classification** IB2a2 **Management Concerns**
Acreage: 1.09 Is species composition changing? No Deer Impact
Date: 08/15/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | <5' - >30' | No | | | |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | cinnamon fern | <5' | No | | | |
| Wet | skunk cabbage | <5' | No | | | |
| Depression | mosses | <5' | No | | | |
| | poison ivy | <5' & 5-30' | No | | | |

Comments:

This unit is the more eastern part of the Great Swamp. It has a red maple canopy and a couple of small streams flow through it. Spicebush and cinnamon fern dominate the understory as does moss, which covers all tree roots and many small boulders. There is also a lot of skunk cabbage and poison ivy. Other species present include arrowwood, Virginia creeper, royal fern, multiflora rose, highbush blueberry, Canada mayflower, Japanese barberry, white snake root, enchanter's nightshade, bittersweet nightshade, catbrier, jewelweed, Japanese stiltgrass, wineberry, Japanese angelica, common winterberry, white avens and small spike false nettle.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|-----------------|------------|----------------------------------|--------|--|----------------------------|
| Unit: | 554 | Classification | IIB2a2 | | Management Concerns |
| Acreage: | 0.12 | Is species composition changing? | Yes | | Deer Impact |
| Date: | 08/15/2012 | Is community structure changing? | Yes | | Invasive Sp. |

| Site: | Species | Height | Exotic | Historical | Uses | Disturbances |
|--------------|---------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | >30' & 5-30' | No | | | Trash |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | Japanese stiltgrass | <5' | Yes | | | |
| Moist | cinnamon fern | <5' | No | | | |
| Slope | | | | | | |

Comments:

This is a small woodland between the eastern portion of the catbrier vineland and the Great Swamp. The soil is still very moist and one of the streams continues through this unit. The canopy is still red maple, but Japanese stiltgrass has started taking over the herb layer. There is also a lot of multiflora rose and catbrier. Other species present include spicebush, moss, skunk cabbage, poison ivy, Canada mayflower, jewelweed, bittersweet nightshade, Virginia creeper, goldenrod, porcelainberry, Japanese honeysuckle, hayscented fern, American pokeweed, royal fern, pilewort, white avens and warm season grass. There is a little bit of ash regeneration in this unit.

| | | | | | |
|-----------------|------------|----------------------------------|-------|--|----------------------------|
| Unit: | 555 | Classification | IB2a6 | | Management Concerns |
| Acreage: | 0.74 | Is species composition changing? | Yes | | Deer Impact |
| Date: | 08/20/2012 | Is community structure changing? | Yes | | Invasive Sp. |

| Site: | Species | Height | Exotic | Historical | Uses | Disturbances |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sassafras | <5' - >30' | No | Fence | | Trash |
| Deciduous | black cherry | <5' - >30' | No | | | |
| Lianas | poison ivy | <5' - >30' | No | | | |
| Moist | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Slope | wisteria | <5' & 5-30' | Yes | | | |

Comments:

This is a small closed forest unit along Brielle Avenue, near the Recreation Center. There is trash all throughout the unit. The canopy is dominated by sassafras and black cherry but slippery elm, black locust, Norway maple, black oak, black walnut, red maple, American beech, green ash, amur cork tree and black birch are also present. Poison ivy climbs up many of the trees and there are several dead trees within this unit. There is more catbrier and less wisteria closer to the Recreation Center and there is also a small fern patch in the unit. Oriental bittersweet, porcelainberry, common winterberry, common buckthorn, yew, sweet cherry, Japanese knotweed, goldenrod, white snake root, American basswood, Virginia creeper, multiflora rose, garlic mustard, arrowwood, cinnamon fern, American pokeweed, mugwort, wineberry, tree of heaven, spicebush, enchanter's nightshade, trailing dewberry, fringed bindweed and lily species are also present. Green ash, sassafras, pin oak, sweetgum, slippery elm, American beech, black cherry and black oak are regenerating.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|-----------------|------------|----------------------------------|-------|--|----------------------------|
| Unit: | 556 | Classification | IB2a2 | | Management Concerns |
| Acreage: | 2.26 | Is species composition changing? | No | | Deer Impact |
| Date: | 08/16/2012 | Is community structure changing? | No | | Invasive Sp. |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|--------------|---------------------|
| Closed Forest | pin oak | <5' - >30' | No | Fence | Foot traffic | Trash |
| Deciduous | sassafras | <5' - >30' | No | Restoration | | Dumping |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | Other |
| Moist | Japanese honeysuckle | <5' | Yes | | | |
| Slope | poison ivy | <5' & 5-30' | No | | | |

Comments:

This is a large closed forest unit between Brielle Avenue and the Recreation Center. The canopy is predominantly pin oak with a little bit of black cherry, sassafras, white oak, American beech, black oak and red maple mixed in. There is a significant amount of sassafras, sweetgum and black cherry regeneration in this unit which makes up a significant amount of the understory. Other regenerating species include pin oak, white oak, green ash, red maple, London planetree, eastern white pine, American beech and black locust. The understory is a mix of spicebush, lowbush blueberry and arrowwood. Some vines, mostly poison ivy and Japanese honeysuckle, are beginning to dominate the northern part of the unit. There is also what appears to be remains of the Recreation Center haunted walk, this is disturbance number three, "Other". Trailing dewberry, path rush, garlic mustard, Virginia creeper, wineberry, multiflora rose, goldenrod, oriental bittersweet, American pokeweed, mugwort, cinquefoil, Asiatic daylily, Japanese knotweed, Devil's walking stick, yellow wood sorrel, pilewort, catbrier, Solomon's seal species, cinnamon fern, hayscented fern, highbush blueberry, Jack in the pulpit, white avens and sensitive fern are also present.

| | | | | | |
|-----------------|------------|----------------------------------|--------|--|----------------------------|
| Unit: | 557 | Classification | IIB2a6 | | Management Concerns |
| Acreage: | 0.36 | Is species composition changing? | Yes | | Deer Impact |
| Date: | 08/21/2012 | Is community structure changing? | Yes | | Invasive Sp. |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | pin oak | <5' - >30' | No | | | |
| Deciduous | sweetgum | <5' - >30' | No | | | |
| Lianas | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Moist | Virginia creeper | <5' | No | | | |
| Slope | poison ivy | <5' - >30' | No | | | |
| | bindweed | <5' | No | | | |

Comments:

This is a closed forest unit between Brielle Avenue and the trail that connects the Recreation Center and Nature Center. Pin oak and sweetgum dominate the canopy but there is also sassafras, red maple, black oak, black cherry and tulip poplar present. Sweetgum, pin oak, black cherry, sassafras green ash and black oak are all regenerating. Devil's walking stick, American pokeweed, pilewort, catbrier, warm season grass, Pennsylvania blackberry, Asiatic daylily, highbush blueberry, deertongue grass, oriental bittersweet, multiflora rose, goldenrod, arrowwood, roundleaf wintergreen and porcelainberry are also present.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 558 **Classification** IIB2a6 **Management Concerns**
Acreage: 0.48 Is species composition changing? Yes Deer Impact
Date: 08/21/2012 Is community structure changing? Yes Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sassafras | <5' - >30' | No | | | Trash |
| Deciduous | pin oak | <5' - >30' | No | | | Dumping |
| Lianas | Japanese honeysuckle | <5' | Yes | | | |
| Moist | poison ivy | <5' - >30' | No | | | |
| Undulating | wisteria | <5' & 5-30' | Yes | | | |

Comments:

This is a woodland just east of the large pin oak unit and west of Brielle Avenue. Sassafras and pin oak dominate the canopy while Japanese honeysuckle, poison ivy and wisteria dominate the understory. The western border of the unit is a ridge that leads into the pin oak unit. Other canopy species include American basswood, grey birch, hackberry, white oak, black cherry, black walnut and black locust. Multiflora rose, garlic mustard, Virginia creeper, trailing dewberry, wineberry, catbrier, warm season grass, spicebush, oriental bittersweet, American pokeweed, mugwort, porcelainberry, smartweed, pilewort and Asiatic daylily are also present.

Unit: 559 **Classification** IB2a3 **Management Concerns**
Acreage: 0.03 Is species composition changing? No Invasive Sp.
Date: 08/20/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | black locust | <5' - >30' | Yes | | | |
| Deciduous | black walnut | <5' - >30' | No | | | |
| Hemicryptophytes | Japanese honeysuckle | <5' | Yes | | | |
| Moist | poison ivy | <5' & 5-30' | No | | | |
| Level | garlic mustard | <5' | Yes | | | |

Comments:

This is a closed forest unit just off Brielle Avenue. Black locust, black walnut, pin oak, silver maple, black cherry and sassafras are all in the canopy. The understory is a dense layer of Japanese honeysuckle. Closer to the road, this gives way to a dense stand of mugwort. Regenerating species include sassafras, black locust, black walnut and black oak. Other species present include wisteria, multiflora rose, American pokeweed, Virginia creeper, wineberry and Asiatic daylily.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 560 **Classification** VIIIIC **Management Concerns**
Acreeage: 0.50 Is species composition changing? No Invasive Sp.
Date: 08/20/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | Japanese honeysuckle | <5' & 5-30' | Yes | | | Trash |
| Deciduous | bindweed | <5' & 5-30' | No | | | Dumping |
| Lianas | wisteria | <5' & 5-30' | Yes | | | |
| Moist | porcelainberry | <5' & 5-30' | Yes | | | |
| Slope | wineberry | <5' & 5-30' | Yes | | | |
| | American pokeweed | <5' & 5-30' | No | | | |

Comments:

This is a small vineland of invasive species to the east of the Recreation Center overflow parking. The pedestrian path by the entrance roadway serves as the northern border of the unit. There are a few canopy trees (black walnut, sassafras, red maple and green ash) but it is mostly open. Dominant vines include Japanese honeysuckle, wisteria, fringed bindweed, porcelainberry and poison ivy. There is also quite a lot of wineberry and American pokeweed. Some regeneration is occurring (sweetgum, black walnut, sassafras, black cherry, green ash, tulip poplar and red maple) but the vines are taking over what has already become saplings. Other species present include Virginia creeper, jewelweed, European privet, spicebush, garlic mustard, multiflora rose, oriental bittersweet, Asiatic daylily, warm season grass, Japanese barberry, pilewort, rose of Sharon, blackhaw, catbrier, common dock, white avens, trailing dewberry, arrowwood, porcelainberry, Pennsylvania blackberry, Japanese knotweed, mugwort, goldenrod and white snake root.

Unit: 561 **Classification** IB2a3 **Management Concerns**
Acreeage: 0.19 Is species composition changing? No Invasive Sp.
Date: 08/20/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | Norway maple | <5' - >30' | Yes | Foundation | | Trash |
| Deciduous | white mulberry | >30' & 5-30' | Yes | | | Dumping |
| Hemicryptophytes | garlic mustard | <5' | Yes | | | |
| Moist | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Level | wineberry | <5' & 5-30' | Yes | | | |
| | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a closed forest unit located between two parking lots of the Recreation Center. There is an old red brick building and smokestack in the unit. There is also part of the unit that slopes down into a small depression. The dominant canopy species are Norway maple and white mulberry, with a fair amount of black walnut as well. Garlic mustard is dominant in the understory. On the edges of the unit, close to the parking lots, wineberry is very dominant. Other species include Devil's walking stick, tree of heaven, enchanter's nightshade, American pokeweed, catbrier, smartweed, Virginia creeper, spicebush, poison ivy, mugwort, multiflora rose, Japanese honeysuckle, white avens, Asiatic daylily, cinquefoil, giant ragweed, trailing dewberry, white snake root and porcelainberry. Regenerating species include hackberry, black oak, green ash, tulip poplar, sassafras and tree of heaven.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 562 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.19 Is species composition changing? No Invasive Sp.
Date: 08/20/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | black oak | <5' - >30' | No | | | Trash |
| Deciduous | black cherry | <5' - >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Slope | garlic mustard | <5' | Yes | | | |

Comments:

This is a woodland between the Recreation Center overflow parking and the fence line. Black oak and black cherry dominate the canopy, but there is also a large black walnut a small European beech and a pin oak present. There is a dense layer of spicebush in the understory and garlic mustard covers the herb layer. Other species include American pokeweed, wineberry, wisteria, Jack in the pulpit, Japanese honeysuckle, lilly of the valley, multiflora rose, Virginia creeper, white avens, enchanter's nightshade, mugwort, American hazelnut, white snakeroot, European privet, poison ivy, catbrier, arrowwood, yellow wood sorrel and white wood aster. Regenerating species include black oak, green ash, black cherry, hackberry and sassafras.

Unit: 563 **Classification** IB2a6 **Management Concerns**
Acreage: 0.19 Is species composition changing? No Invasive Sp.
Date: 08/20/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|-------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red oak | <5' - >30' | No | Fence | | Trash |
| Deciduous | sassafras | <5' - >30' | No | | | |
| Lianas | wisteria | <5' & 5-30' | Yes | | | |
| Moist | wineberry | <5' & 5-30' | Yes | | | |
| Slope | spicebush | <5' & 5-30' | No | | | |
| | American pokeweed | <5' | No | | | |

Comments:

This is a closed forest unit along the fence, east of the Recreation Center. The canopy is mostly red oak and sassafras with green ash, black birch and black cherry also present. The understory has a lot of wisteria and wineberry. There is also a lot of lily of the valley throughout. Poison ivy grows up most of the trees and covers the herb layer. Other species present include porcelainberry, enchanter's nightshade, white avens, hackberry, trailing dewberry, blackhaw, Virginia creeper, Japanese honeysuckle, garlic mustard, oriental bittersweet, multiflora rose, Asiatic daylily, fringed bindweed and mugwort. Sweetgum, sassafras, black cherry and Norway maple are regenerating.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 564 **Classification** IB2a6 **Management Concerns**
Acreeage: 0.41 Is species composition changing? Yes Invasive Sp.
Date: 08/20/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | silver maple | >30' & 5-30' | No | | | Trash |
| Deciduous | sweetgum | <5' - >30' | No | | | |
| Lianas | poison ivy | <5' - >30' | No | | | |
| Moist | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Undulating | oriental bittersweet | <5' & 5-30' | Yes | | | |
| | white wood aster | <5' | No | | | |

Comments:

This is a closed forest unit south of the Recreation Center overflow parking. The canopy is mostly comprised of silver maple and sweetgum. Other canopy species include white mulberry, box elder, pin oak, Norway maple, black cherry, hackberry, sassafras, slippery elm, green ash and black oak. While there is a fair amount of regeneration in the understory, there is also a significant amount of vines and therefore this unit could be on its way to becoming a vineland. The species regenerating include sassafras, pin oak, sweetgum, hackberry, Norway maple, red maple, green ash, black oak and black cherry. Other species present include lily of the valley, mugwort, wineberry, garlic mustard, Virginia creeper, enchanter's nightshade, American pokeweed, multiflora rose, porcelainberry, goldenrod, white snake root, catbrier, yellow wood sorrel, arrowwood, trailing dewberry, blackhaw, wisteria and white avens.

Unit: 565 **Classification** IIIB1a **Management Concerns**
Acreeage: 0.02 Is species composition changing? Yes Invasive Sp.
Date: 08/21/2012 Is community structure changing? Yes Succession

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Scrub | wineberry | <5' | Yes | | | Trash |
| Deciduous | black locust | <5' & 5-30' | Yes | | | |
| Lianas | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a small scrub unit just off Brielle Avenue. It is mostly regenerating black locust and wineberry, with a carpet of Japanese honeysuckle in the understory. There is a bit of common milkweed and some regenerating black cherry, black walnut and black oak as well. Goldenrod, mugwort, warm season grasses, trailing dewberry, common yarrow, multiflora rose and Queen Anne's lace are also present.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 566 **Classification** IIB2a2 **Management Concerns**
Acreage: 1.17 Is species composition changing? Yes Invasive Sp.
Date: 09/06/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | black locust | <5' - >30' | Yes | Fence | | Trash |
| Deciduous | multiflora rose | <5' & 5-30' | Yes | | | Dumping |
| Chamaephytes | Japanese honeysuckle | <5' | Yes | | | |
| Moist | garlic mustard | <5' | Yes | | | |
| Undulating | | | | | | |

Comments:

This is a small woodland just south of the Recreation Center basketball and tennis courts'. It is extremely disturbed with lots of invasives and lots of dumping. There is a fence that runs through and makes up the southern border. The canopy is almost solely black locust with a few Norway maple trees and a few black cherry saplings. There is also one silver maple. The understory is a dense layer of multiflora rose with a thick layer of Japanese honeysuckle in the herbaceous layer. Other species present include American pokeweed, spicebush, porcelainberry, catbrier, mugwort, poison ivy, Virginia creeper, tree of heaven, wineberry, white avens, Devil's walking stick, wild onion, smartweed, goldenrod and oriental bittersweet. Regenerating species include Norway maple, black locust, black oak and pin oak.

Unit: 567 **Classification** IVA3a5 **Management Concerns**
Acreage: 0.31 Is species composition changing? Yes Invasive Sp.
Date: 08/21/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous | American pokeweed | <5' & 5-30' | No | | | Trash |
| Deciduous | white snakeroot | <5' | No | | | Dumping |
| Hemicryptophytes | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Moist | wineberry | <5' & 5-30' | Yes | | | |
| Undulating | porcelainberry | <5' & 5-30' | Yes | | | |
| | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a small unit of herbaceous plants near the Recreation Center parking lot. It descends down the hill into the park. It is predominantly made up of American pokeweed, white snake root, Japanese honeysuckle, wineberry, porcelainberry and spicebush. Vines are taking over the unit. It seems as though it is an old dumping site, perhaps from building the Recreation Center. There are a few trees on the edge of the unit, these are white ash, tree of heaven, Japanese angelica, black walnut, black cherry and black oak. A little bit of sassafras and black walnut was found regenerating. Other species present include common mullein, purple thistle, garlic mustard, beggar's lice, bindweed, trailing dewberry, oriental bittersweet, multiflora rose, mugwort, grass species, Japanese barberry, Virginia creeper, catbrier, deertongue grass, Pennsylvania blackberry, Marrow's honeysuckle, goldenrod, white avens and enchanter's nightshade.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 568 **Classification** IB2a6 **Management Concerns**
Acreeage: 2.50 Is species composition changing? Yes Deer Impact
Date: 08/23/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | <5' - >30' | No | Fence | | |
| Deciduous | white oak | >30' & 5-30' | No | | | |
| Lianas | catbrier | <5' & 5-30' | No | | | |
| Moist | spicebush | <5' & 5-30' | No | | | |
| Slope | | | | | | |

Comments:

This is a large red maple closed forest with catbrier as the dominant understory species. It is between some edge/disturbed units south of the Recreation center and the eastern portion of the Great Swamp. While there are other species in the canopy, most notably white oak, the red maple really dominates. The same could be said of the catbrier understory. Other canopy species include sweetgum, sassafras, tree of heaven, pin oak and black oak. Black cherry, sassafras, sweetgum, red maple and black birch are all regenerating. Other species present include poison ivy, skunk cabbage, cinnamon fern, Canada mayflower, moss, lowbush blueberry, arrowwood, Virginia creeper, Rubus species, Japanese knotweed, pilewort, jewelweed, deertongue grass, climbing hempweed, oriental bittersweet, Devil's walking stick, American pokeweed, Japanese stiltgrass, multiflora rose, sensitive fern, wild yam, Japanese barberry, Japanese honeysuckle, porcelainberry, bracken fern wineberry and dangleberry.

Unit: 569 **Classification** VIIIIC **Management Concerns**
Acreeage: 0.79 Is species composition changing? No Deer Impact
Date: 09/06/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | Japanese honeysuckle | <5' - >30' | Yes | Fence | | Trash |
| Deciduous | oriental bittersweet | <5' - >30' | Yes | | | Auto |
| Lianas | American pokeweed | <5' & 5-30' | No | | | Dumping |
| Moist | multiflora rose | <5' & 5-30' | Yes | | | |
| Slope | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a large vineland southwest of the Recreation Center. There is a sparse overstory composed of red maple, white oak, tree of heaven, pin oak, slippery elm, black walnut, back locust, Norway maple and black cherry, but vines are taking over. There is a fence that runs diagonally through the unit. There is a lot of dumping in the northern edges of the unit, including two old cars. Regenerating species include white mulberry, sassafras, tree of heaven, black walnut and black cherry. Other species include pilewort, catbrier, Devil's walking stick, jewelweed, trailing dewberry, wineberry, poison ivy, porcelainberry, white avens, curly dock, black raspberry, lady's thumb, warm season grass, Virginia creeper, Pennsylvania blackberry, garlic mustard, enchanter's nightshade, white snake root, field thistle, and cespitose smartweed.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|-----------------|------------|----------------------------------|--------|--|----------------------------|
| Unit: | 570 | Classification | IIB2a6 | | Management Concerns |
| Acraege: | 1.02 | Is species composition changing? | Yes | | Deer Impact |
| Date: | 08/23/2012 | Is community structure changing? | Yes | | Invasive Sp. |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sassafras | <5' - >30' | No | | | Trash |
| Deciduous | white oak | >30' | No | | | |
| Lianas | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Moist | catbrier | <5' & 5-30' | No | | | |
| Slope | bindweed | <5' | No | | | |

Comments:

This is a large woodland that vines are taking over. It is west of the trail that connects the Nature Center with the Recreation Center and south of the Recreation Center. There is sassafras, white oak, sweetgum, red maple, pin oak, black walnut, white ash and Norway maple in the canopy; only sassafras, red maple, sweetgum and black cherry are regenerating. The major vines are catbrier, Japanese honeysuckle and bindweed. Spicebush and American pokeweed are prevalent also. Deertongue grass, pilewort, oriental bittersweet, poison ivy, Virginia creeper, garlic mustard, multiflora rose, arrowwood, wineberry, Pennsylvania blackberry, white snake root, trailing dewberry, white avens, Devil's walking stick, beggar's lice, porcelainberry, mugwort, jewelweed, goldenrod, enchanter's nightshade and mile a minute. Note: the mile a minute was removed on September 9th, 2012, however this site should be monitored closely for its return in the future.

| | | | | | |
|-----------------|------------|----------------------------------|-------|--|----------------------------|
| Unit: | 571 | Classification | IB2a2 | | Management Concerns |
| Acraege: | 0.64 | Is species composition changing? | No | | Deer Impact |
| Date: | 08/29/2012 | Is community structure changing? | No | | Invasive Sp. |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | <5' - >30' | No | | | Trash |
| Deciduous | sweetgum | <5' - >30' | No | | | Dumping |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | cinnamon fern | <5' | No | | | |
| Slope | catbrier | <5' & 5-30' | No | | | |
| | poison ivy | <5' & 5-30' | No | | | |

Comments:

This is a nice closed forest unit stretching from Rockland Avenue to the Great Swamp. Red maple dominates the canopy but there is also a fair amount of sweetgum and some pin oak. There is a lot of spicebush and cinnamon fern in the understory and in some places, cinnamon fern and royal fern are more dominant than spicebush. There is a lot of catbrier mixed in but it gets more dominant on the western side of the unit where a swampy catbrier unit begins. Other species include sweet pepperbush, Azalea species, Virginia creeper, arrowwood, goldenrod, Canada mayflower, Japanese barberry, Japanese honeysuckle, wild yam, lowbush blueberry, highbush blueberry, Solomon's seal species, sensitive fern and maple leaf viburnum. Regenerating species include sweetgum, red maple and pin oak.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 572 **Classification** IVB1c **Management Concerns**
Acreage: 0.28 Is species composition changing? No Invasive Sp.
Date: 08/29/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|---------------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous | Phragmites | <5' & 5-30' | Yes | | | |
| Deciduous | lilly spp | <5' | | | | |
| Geophytes | cespitose smartweed | <5' | No | | | |
| Wet | bindweed | <5' | No | | | |
| Depression | poison ivy | <5' & 5-30' | No | | | |

Comments:

This is a small Phragmites unit north of Rockland Avenue, near the white trail. Phragmites dominates the unit with lots of smartweed mixed in. This unit is an area where some of the streams from the Great Swamp meet, making this area very wet. Other species include Virginia creeper, elderberry, warm season grass, skunk cabbage, sensitive fern, porcelainberry, arrowwood, bitter dock, cinnamon fern, spicebush, smartweed, cespitose smartweed, arrow-leaved tearthumb, climbing hempweed, fowl mana grass, speckled alder, jewelweed and Japanese knotweed.

Unit: 573 **Classification** IIB2a6 **Management Concerns**
Acreage: 0.13 Is species composition changing? Yes Invasive Sp.
Date: 09/24/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | pin oak | <5' & >30' | No | | | Trash |
| Deciduous | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Lianas | porcelainberry | <5' & 5-30' | Yes | | | |
| Moist | catbrier | <5' & 5-30' | No | | | |
| Slope | poison ivy | <5' & 5-30' | No | | | |
| | multiflora rose | <5' & >30' | Yes | | | |

Comments:

This is a small woodland edge unit just north of Rockland Avenue and east of the white trailhead. It is transforming into a vineland. There are two pin oaks in the canopy, a couple of pin oak seedlings and two other saplings, one ash and one slippery elm. Both saplings are overcome with vines. The primary vines are Japanese honeysuckle and porcelainberry. There is also a lot of catbrier, multiflora rose and poison ivy. Other species include arrowwood, Japanese barberry, oriental bittersweet, common plantain, spicebush, Japanese knotweed, grape, Virginia creeper, goldenrod, climbing hempweed, American pokeweed, wild onion and Rubus species.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 574 **Classification** IIB2a3 **Management Concerns**
Acreeage: 0.23 Is species composition changing? No Deer Impact
Date: 09/25/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sweetgum | <5' - >30' | No | | | Foot traffic |
| Deciduous | red maple | <5' - >30' | No | | | |
| Hemicryptophytes | white oak | <5' - >30' | No | | | |
| Moist | poison ivy | <5' - >30' | No | | | |
| Undulating | cinnamon fern | <5' - >30' | No | | | |

Comments:

This is a woodland just north of Rockland Avenue. The white trail dissects the unit. A small suburb is on the west side and part of the Great Swamp on the east. Mostly oaks, maples and sweetgum in the canopy, but there is also blackgum, european black alder and slippery elm. There is a lot of tree regeneration, primarily sweetgum, red maple, red oak, black oak, white oak, ash species, American beech and blackgum but also a little bit of mockernut hickory. There are also a few hickories in the unit. Poison ivy covers the understory up to about 2' and climbs up most trees. Some patches of arrowwood are present, but the remainder of dominant vegetation is herbs and forbs. Other species present include Japanese stiltgrass, Virginia creeper, white avens, trailing dewberry, catbrier, Azalea species, spicebush, Japanese honeysuckle, porcelainberry, goldenrod, jewelweed, mugwort, Japanese knotweed, violets, climbing hempweed, multiflora rose, Phragmites, thistle species, pilewort, common winterberry, New York fern, whorled yellow loosestrife, grape and oriental bittersweet.

Unit: 575 **Classification** IB2a1 **Management Concerns**
Acreeage: 0.31 Is species composition changing? No Deer Impact
Date: 09/24/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' & 5-30' | No | | | Foot traffic |
| Deciduous | red maple | <5' & 5-30' | No | | | |
| Phanerophytes | slippery elm | <5' & >30' | No | | | |
| Moist | poison ivy | <5' | No | | | |
| Level | | | | | | |

Comments:

This is a young closed forest unit, nothing older than about 15-20 years. The white trail runs through the middle and a neighborhood is on the southern border. Sweetgum and red maple are dominant. Other young trees present include grey birch, common buckthorn, tulip poplar, black gum, sassafras, black alder and American beech. There is also a lot of poison ivy. Other species present include Japanese honeysuckle, Virginia creeper, arrowwood, multiflora rose, common winterberry, cinnamon fern, royal fern, jewelweed, highbush blueberry, lowbush blueberry, trailing dewberry, goldenrod, oriental bittersweet, porcelainberry, Japanese stiltgrass, violets, white avens and spicebush. Regenerating species include ash species, red maple, American beech, red oak, slippery elm and sassafras.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 576 **Classification** IB2a6 **Management Concerns**
Acraege: 0.24 Is species composition changing? No Invasive Sp.
Date: 09/24/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sweetgum | <5' & 5-30' | No | | | Foot traffic |
| Deciduous | red maple | <5' & 5-30' | No | | | |
| Lianas | poison ivy | <5' & 5-30' | No | | | |
| Moist Level | porcelainberry | <5' & 5-30' | Yes | | | |

Comments:

This unit is just north of the neighborhood and west of the sweetgum/red maple young closed forest. As the unit adjacent to this one, it is dominated by young sweetgum and red maple, but this unit is more sparse and vines are taking over the understory. There is also a patch of black alders in the middle of the unit. The white trail continues through the middle of this unit. Other species present include deertongue grass, Phragmites, Japanese knotweed, spicebush, multiflora rose, Virginia creeper, grape, arrowwood, Jewelweed, goldenrod, Japanese honeysuckle, white avens, European privet, Japanese stiltgrass, Virginia knotweed, path rush, cinquefoil, sedges, mugwort, Indian hemp, loosestrife species.

Unit: 577 **Classification** IIB2a6 **Management Concerns**
Acraege: 0.22 Is species composition changing? Yes Invasive Sp.
Date: 08/23/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sassafras | <5' - >30' | No | Restoration | | Foot traffic |
| Deciduous | bindweed | <5' | No | | | |
| Lianas | Japanese honeysuckle | <5' | Yes | | | |
| Moist Slope | American pokeweed | <5' & 5-30' | No | | | |

Comments:

This is a small sassafras woodland descending down a steep slope from the trail that connects the Recreation Center and the Nature Center. The canopy is almost solely sassafras, but a couple black cherry, sweetgum, white mulberry and silver maples are also present. Close to the trail there is a lot of pokeweed and tree regeneration, including sassafras, sweetgum, tulip poplar and pin oak. Some of this looks like restoration planting. The rest of the understory is spotted with jewelweed and spicebush with a thick layer of Japanese honeysuckle, Virginia creeper and bindweed. Other species include garlic mustard, catbrier, trailing dewberry, Pennsylvania blackberry, oriental bittersweet, yellow wood sorrel, porcelainberry, ragweed, poison ivy, Asiatic daylily, wineberry, multiflora rose, deertongue grass, enchanter's nightshade, Devil's walking stick, arrowwood and Japanese barberry. In addition to the species already listed as regenerating, red maple and ash is also regenerating.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 578 **Classification** IIB2a6 **Management Concerns**
Acreeage: 0.04 Is species composition changing? No
Date: 08/23/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sassafras | <5' & >30' | No | Fence | | |
| Deciduous | catbrier | <5' & 5-30' | No | | | |
| Lianas | | | | | | |
| Moist | | | | | | |
| Level | | | | | | |

Comments:

This is a small woodland just south of the Recreation center parking lot. Sassafras dominates the canopy and catbrier has taken over the understory. Some tulip poplar, sweetgum, sassafras, white oak, black cherry and red maple is regenerating through the catbrier. There is an old rock wall on the eastern side of the unit. This unit spills into the adjacent sassafras/ white oak woodland that vines are taking over, however catbrier is significantly thicker here. Other species include smooth alder, bindweed, Japanese honeysuckle, spicebush, white snake root, pilewort, Rubus species, goldenrod, multiflora rose, Virginia creeper, mugwort, oriental bittersweet, poison ivy, white avens, arrowwood, highbush blueberry, warm season grass and Japanese knotweed.

Unit: 579 **Classification** IB2a3 **Management Concerns**
Acreeage: 0.75 Is species composition changing? No
Date: 08/29/2012 Is community structure changing? No
 Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | >30' & 5-30' | No | | | Trash |
| Deciduous | cinnamon fern | <5' | No | | | |
| Hemicryptophytes | spicebush | <5' & 5-30' | No | | | |
| Wet | poison ivy | <5' - >30' | No | | | |
| Undulating | Phragmites | <5' | Yes | | | |

Comments:

This is the south edge of the Great Swamp. There is standing water in some places and thick mud everywhere. Red maple dominates the canopy and cinnamon fern dominates the understory. Other canopy species include sweetgum, grey birch, ash species, red oak, blackgum, smooth alder. Some red maple, sweetgum, red oak and ash is regenerating. Jewelweed, skunk cabbage, arrowwood, catbrier, Virginia creeper, cinnamon fern, Canada mayflower, sweet pepperbush, royal fern, arrowwood, porcelainberry, goldenrod, elderberry, bittersweet nightshade, trailing dewberry, multiflora rose, smartweed, bindweed, Japanese stiltgrass, Aralia species, wild yam, Azalea species, grape and Japanese knotweed are also present.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 580 **Classification** IB2a2 **Management Concerns**
Acreage: 0.74 Is species composition changing? No Deer Impact
Date: 08/31/2012 Is community structure changing? No Ecol. Interact/Ref. Site

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | |
| Deciduous | pin oak | >30' & 5-30' | No | | | |
| Chamaephytes | red maple | >30' & 5-30' | No | | | |
| Moist | spicebush | <5' & 5-30' | No | | | |
| Slope | blackgum | <5' - >30' | No | | | |
| | New York fern | <5' | No | | | |

Comments:

This is a nice closed forest unit off Rockland Avenue. The dominant canopy species are sweetgum, pin oak and red maple, but there is also a lot of blackgum, white oak and black oak. The understory is primarily spicebush and tree regeneration (sweetgum, blackgum, red maple and shagbark hickory). Overall, this is a healthy site that is ecologically intact, other than some deer herbivory. Other species include cinnamon fern, royal fern, poison ivy, Canada mayflower, Solomon's seal species, arrowwood, highbush blueberry, catbrier, serviceberry, warm season grass, Azalea species, lowbush blueberry and Japanese barberry.

Unit: 581 **Classification** IB2a2 **Management Concerns**
Acreage: 0.34 Is species composition changing? No Deer Impact
Date: 08/31/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|-----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | <5' - >30' | No | | | |
| Deciduous | sweetgum | <5' - >30' | No | | | |
| Chamaephytes | swamp white oak | <5' - >30' | No | | | |
| Moist | spicebush | <5' & 5-30' | No | | | |
| Level | catbrier | <5' & 5-30' | No | | | |
| | poison ivy | <5' & 5-30' | No | | | |

Comments:

This is a closed forest north of Rockland Avenue and south of the Great Swamp. The canopy is dominated by red maple but white oak, sweetgum, pin oak, black oak, shagbark hickory and some musclewood is also present. Spicebush is the primary understory species, but catbrier is a close second. There is also a lot of poison ivy. Species also present include Virginia creeper, Canada mayflower, arrowwood, oriental bittersweet, cinnamon fern, New York fern, enchanter's nightshade, porcelainberry, goldenrod, multiflora rose, Japanese barberry and northern lady fern. Red maple, sweetgum, black oak and hickory species are regenerating.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 582 **Classification** IB2a2 **Management Concerns**
Acreage: 0.16 Is species composition changing? No
Date: 08/24/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | <5' - >30' | No | | | |
| Deciduous | catbrier | <5' | No | | | |
| Chamaephytes | poison ivy | <5' - >30' | No | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a small red maple closed forest between the Great Swamp and Rockland Avenue. Catbrier is thick up to about 3'. There is a small stream on the northern edge of the unit that is part of the Great Swamp. There is a little bit of sweetgum, red maple and sassafras regeneration. Other species include lowbush blueberry, multiflora rose, Japanese honeysuckle, goldenrod, highbush blueberry, Canada mayflower, spicebush, trailing dewberry, skunk cabbage, jewelweed, climbing hempweed, wild yam and arrowwood. Black cherry is also in the canopy and sweetgum, red maple, sassafras, slippery elm, black cherry and pin oak are regenerating.

Unit: 583 **Classification** IB2a4 **Management Concerns**
Acreage: 0.25 Is species composition changing? No
Date: 09/05/2012 Is community structure changing? No
 Deer Impact
 Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | >30' | No | | | Trash |
| Deciduous | Phragmites | <5' & 5-30' | Yes | | | |
| Geophytes | spicebush | <5' & 5-30' | No | | | |
| Wet | cinnamon fern | <5' | No | | | |
| Level | skunk cabbage | <5' | No | | | |
| | poison ivy | <5' & 5-30' | No | | | |

Comments:

This is a drier area of the Great Swamp between two very wet areas. As with the surrounding units, red maple dominates the canopy. There are a couple young grey birch trees and red maple, grey birch and pin oak are regenerating. The understory is predominantly Phragmites but there is also a lot of spicebush, cinnamon fern, skunk cabbage and poison ivy. The poison ivy is growing both as a vine and as a shrub. Species also present include highbush blueberry, Canada mayflower, sweet pepperbush, Virginia creeper, catbrier, Japanese stiltgrass, Japanese barberry, royal fern, jewelweed, curly dock, sensitive fern, skunk cabbage, arrowwood, Rubus species, multiflora rose, Japanese honeysuckle, elderberry, climbing hempweed and goldenrod.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 584 **Classification** IB2a3 **Management Concerns**
Acreage: 0.24 Is species composition changing? No Deer Impact
Date: 09/05/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | <5' - >30' | No | | | |
| Deciduous | cinnamon fern | <5' | No | | | |
| Hemicryptophytes | skunk cabbage | <5' | No | | | |
| Wet | jewelweed | <5' | No | | | |
| Level | mosses | <5' | No | | | |
| | poison ivy | <5' | No | | | |

Comments:

This unit is part of the Great Swamp. Red maple is the only canopy species and the shrub layer is fairly open with only a few spicebush and a few poison ivy in shrub form. The rest of the unit is dominated by cinnamon fern, skunk cabbage and jewelweed with moss covering most surfaces without standing water. Devil's walking stick, climbing hempweed, violets, Jack in the pulpit, Virginia creeper, sensitive fern, multiflora rose elderberry, dotted smartweed, soft rush, Japanese honeysuckle, Japanese knotweed, bittersweet nightshade, Japanese stillgrass, lowbush blueberry, grass species, smallspike false nettle, Rubus species, sweet pepperbush, Phragmites, catbrier, royal fern and American pokeweed are also present.

Unit: 585 **Classification** IB2a3 **Management Concerns**
Acreage: 0.12 Is species composition changing? No
Date: 09/05/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | <5' - >30' | No | | | |
| Deciduous | cinnamon fern | <5' | No | | | |
| Hemicryptophytes | jewelweed | <5' | No | | | |
| Wet | skunk cabbage | <5' | No | | | |
| Level | poison ivy | <5' & 5-30' | No | | | |
| | mosses | <5' | No | | | |

Comments:

This is a wet, southern portion of the Great Swamp, near a catbrier unit. Red maple dominates the canopy, but there are a couple sweetgum trees. Both are regenerating. The understory is mostly cinnamon fern, skunk cabbage and jewelweed, with moss on the surfaces without standing water. There is also a lot of poison ivy, mostly growing as upright stalks. There is also a fair amount of spicebush. One of the small streams is the northern border of this unit. Species also present include arrowwood, sensitive fern, goldenrod, Virginia creeper, Japanese barberry, catbrier, Canada mayflower, highbush blueberry, common boneset and Phragmites.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 586 **Classification** IB2a2 **Management Concerns**
Acreage: 1.47 Is species composition changing? No Deer Impact
Date: 09/05/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | >30' & 5-30' | No | | | Trash |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | cinnamon fern | <5' | No | | | |
| Wet | poison ivy | <5' & 5-30' | No | | | |
| Level | skunk cabbage | <5' | No | | | |
| | mosses | <5' | | | | |

Comments:

This is a large part of the Great Swamp that includes part of the main stream and several tributaries running south toward Rockland Avenue. Red maple almost solely dominates the canopy, but swamp white oak, sweetgum, grey birch, slipper elm and tulip poplar are also minimally present. There is a lot of spicebush present and a few other shrub species in this layer. Cinnamon fern, poison ivy, skunk cabbage and moss dominate the herbaceous layer. Other species present include smallspike false nettle, jewelweed, Phragmites, dotted smartweed, cespitose smartweed, Canada mayflower, oriental bittersweet, highbush blueberry, multiflora rose, arrowwood, American hazelnut, mapleleaf viburnum, royal fern, climbing hempweed, lady's thumb, Japanese stiltgrass, sensitive fern, Japanese barberry, catbrier, Jack in the pulpit, elderberry, porcelainberry, goldenrod, blackhaw, halberd leaved tearthumb and few bracted beggerstick. Species regenerating include sweetgum, swamp white oak, slippery elm, ash species, sassafras and black cherry.

Unit: 587 **Classification** IB2a2 **Management Concerns**
Acreage: 0.18 Is species composition changing? No
Date: 09/05/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | <5' - >30' | No | | | |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | cinnamon fern | <5' | No | | | |
| Surface water | skunk cabbage | <5' | No | | | |
| Level | poison ivy | <5' & 5-30' | No | | | |

Comments:

This is a small part of the Great Swamp, north of Rockland Avenue and between two major stream tributaries. This unit is wetter than surrounding areas. Red maple dominates the canopy and spicebush, cinnamon fern and skunk cabbage dominate the understory. There is also a couple black alders in the canopy. Some red maple and sweetgum are regenerating. Other species include Canada mayflower, sensitive fern, Virginia creeper, porcelainberry, climbing hempweed, jewelweed, arrowwood, Phragmites, cool season grass, Allegheny monkeyflower, multiflora rose and royal fern.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|-----------------|------------|----------------------------------|--------|--|-----------------------------------|
| Unit: | 588 | Classification | IIB2a2 | | <u>Management Concerns</u> |
| Acreage: | 0.14 | Is species composition changing? | Yes | | Deer Impact |
| Date: | 09/06/2012 | Is community structure changing? | Yes | | Invasive Sp. |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | white oak | >30' | No | | | Trash |
| Deciduous | red maple | >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | American pokeweed | <5' & 5-30' | No | | | |
| Level | jewelweed | <5' & 5-30' | No | | | |
| | Japanese honeysuckle | <5' | Yes | | | |

Comments:

This is a small woodland unit between the catbrier unit and a large vineland. It is likely transitioning into a vineland, as many vines cover the ground and there is no tree regeneration. Other canopy species include tree of heaven, slippery elm, white mulberry and pin oak. Other species present include smartweed, catbrier, oriental bittersweet, pilewort, Devil's walking stick, trailing dewberry, wineberry, poison ivy, Virginia creeper, porcelainberry, multiflora rose, white avens, silky dogwood and curly dock.

| | | | | | |
|-----------------|------------|----------------------------------|--------|--|-----------------------------------|
| Unit: | 589 | Classification | IIB2a3 | | <u>Management Concerns</u> |
| Acreage: | 0.82 | Is species composition changing? | Yes | | Deer Impact |
| Date: | 09/06.2012 | Is community structure changing? | No | | Invasive Sp. |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | black locust | >30' & 5-30' | Yes | | | Trash |
| Deciduous | garlic mustard | <5' | Yes | | | Auto |
| Hemicryptophytes | mugwort | <5' | Yes | | | Dumping |
| Moist | American pokeweed | <5' & 5-30' | No | | | |
| Undulating | multiflora rose | <5' & 5-30' | Yes | | | |
| | Japanese honeysuckle | <5' | Yes | | | |

Comments:

This is a woodland unit southwest of the tennis courts. Black locust dominates the canopy, but there is also bigtooth aspen, silver maple and black cherry present. Pin oak, black cherry and sweetgum are regenerating. The understory is mostly garlic mustard and mugwort, but there is also a lot of multiflora rose, Japanese knotweed, American pokeweed and Japanese honeysuckle. Other species include tree of heaven, Norway maple, oriental bittersweet, black raspberry, porcelainberry, poison ivy, spicebush, Virginia creeper, wineberry, white snake root, trailing dewberry and cool season grass.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 590 **Classification** IB2a2
Acreage: 0.58 Is species composition changing? Yes
Date: 09/24/2012 Is community structure changing? No

Management Concerns

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | red maple | >30' & 5-30' | No | | | Trash |
| Deciduous | white oak | >30' & 5-30' | No | | | Dumping |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a small closed forest unit north of the White trail and south of the Great Swamp. Red maple and white oak are dominant canopy species, but regeneration is mostly black cherry, black oak, tulip poplar and tree of heaven. There is also some sassafras, sweetgum and ash species in the canopy. Spicebush is the primary understory species but goldenrod, poison ivy, Japanese honeysuckle, Rubus species, Virginia creeper, catbrier, multiflora rose, Japanese barberry, small white aster, arrowwood, oriental bittersweet, wild yam, Canada mayflower, buckthorn, American hazelnut, northern lady fern, cinnamon fern, royal fern, three fronded fern, Japanese stiltgrass, jewelweed, tree of heaven, Japanese knotweed, sensitive fern, skunk cabbage, New York fern and sweet pepperbush are also present.

Unit: 591 **Classification** IB2a2
Acreage: 0.75 Is species composition changing? Yes
Date: 09/24/2012 Is community structure changing? No

Management Concerns

Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | red maple | <5' - >30' | No | | | Trash |
| Deciduous | red oak | <5' - >30' | No | | | Dumping |
| Chamaephytes | white oak | <5' - >30' | No | | | |
| Moist | green ash | <5' & 5-30' | No | | | |
| Slope | sweet pepperbush | <5' & 5-30' | No | | | |
| | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a closed forest north of the White trail and south of the Great Swamp. There is an old stone wall on the western border. The canopy is very diverse, and there is good regeneration, but mostly just ash rather than the red maple and oaks that are most dominant in the canopy. There is a dense layer of sweet pepperbush in the understory with some spicebush mixed in. Other species include arrowwood, cinnamon fern, New York fern, Virginia creeper, poison ivy, northern lady fern, multiflora rose, Azalea species, American hazelnut, crabapple, blackhaw, common winterberry, royal fern and catbrier. Other canopy trees include sweetgum, blackgum, tree of heaven, tulip poplar and pin oak. Other regenerating species include black cherry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 592 **Classification** VIIIIC **Management Concerns**
Acreeage: 0.07 Is species composition changing? No Deer Impact
Date: 09/25/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|-------------------|---------------|---------------|-------------------|--------------|---------------------|
| Vineland | porcelainberry | <5' & 5-30' | Yes | | Foot traffic | Dumping |
| Deciduous | multiflora rose | <5' & 5-30' | Yes | | | |
| Lianas | poison ivy | <5' | No | | | |
| Moist | Japanese knotweed | <5' & 5-30' | Yes | | | |
| Level | mugwort | <5' | Yes | | | |

Comments:

This is a small vineland unit that the White trail runs through. It is just north of a neighborhood and just east of where Ashworth Avenue dead ends. It is primarily porcelainberry and multiflora rose, but there is one dense section of Japanese knotweed. Poison ivy and mugwort dominate the edges of the trail. Species also present include Phragmites, goldenrod, Virginia creeper, jewelweed, common plantain, enchanter's nightshade, Japanese honeysuckle, oriental bittersweet, Rubus species, Japanese stillgrass, smartweed, bebb willow, spicebush, hayscented fern and path rush. There are a few trees present, including slippery elm, white mulberry, white ash and sweetgum. There is a little bit of white mulberry, ash species, slippery elm and silver maple regenerating.

Unit: 593 **Classification** IIB2a2 **Management Concerns**
Acreeage: 0.34 Is species composition changing? No Deer Impact
Date: 09/25/2012 Is community structure changing? No Ecol. Interact/Ref. Site

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | white oak | <5' - >30' | No | Other | | |
| Deciduous | red oak | >30' & 5-30' | No | | | |
| Chamaephytes | sweet pepperbush | <5' & 5-30' | No | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a nice woodland unit north of the White trail, east of the end of Ashworth Avenue. Red and white oak dominate the canopy, but pin oak, red maple, black oak, swamp white oak and sweetgum are also present. Regeneration is composed of sweetgum, red maple, black cherry, white oak and sassafras. The understory is thick with sweet pepperbush. Aside from some deer herbivory, the unit is ecologically intact. Species also present include poison ivy, catbrier, lowbush blueberry, highbush blueberry, northern lady fern, cinnamon fern, New York fern, Azalea species, arrowwood and American hazelnut.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 594 **Classification** IVA3a5 **Management Concerns**
Acreeage: 0.13 Is species composition changing? No
Date: 09/25/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------------|---------------|---------------|-------------------|--------------|---------------------|
| Herbaceous | Joe-Pye weed | <5' & 5-30' | No | Restoration | Foot traffic | |
| Deciduous | goldenrod | <5' | No | | | |
| Hemicryptophytes | arrowwood | <5' & 5-30' | No | | | |
| Moist | sweetgum | 5'-30' | No | | | |
| Level | pin oak | 5'-30' | No | | | |
| | panicled ticktrefoil | <5' | | | | |

Comments:

This is a small herbaceous unit that is at the end of Ashworth Avenue. The White trail runs through it and it is the site of a DEC restoration. The project trees planted as part of the restoration are not much taller than 12' and are primarily sweetgum, pin oak, paper birch and grey birch. Some other trees regenerating that don't appear to have been planted are silver maple, black locust, slippery elm and willow species. The herbs consist mostly of Joe-Pye weed, New York ironweed, goldenrod, panicled tick trefoil, cattail, Queen Anne's lace, upland boneset, sandwort, path rush, other rush species, sedge species, common dock and white clover. Other species present include poison ivy, arrowwood, spicebush, smartweed, multiflora rose, Phragmites, bebb willow, porcelainberry, mugwort, Japanese knotweed, deertongue grass and Japanese stiltgrass.

Unit: 595 **Classification** IIB2a6 **Management Concerns**
Acreeage: 0.11 Is species composition changing? Yes
Date: 09/25/2012 Is community structure changing? Yes
 Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|-------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | >30' & 5-30' | No | Other | | Trash |
| Deciduous | catbrier | <5' & 5-30' | No | | | |
| Lianas | poison ivy | <5' & 5-30' | No | | | |
| Moist | Virginia creeper | <5' | No | | | |
| Level | Japanese knotweed | <5' & 5-30' | Yes | | | |

Comments:

This is a woodland north of the White trail and south of the vernal pond. It is transitioning into a vineland. Canopy trees present are red maple, pin oak and white ash. There is very little regeneration, what is regenerating consists of some red maple, ash species and black locust. The understory is primarily catbrier and poison ivy. There is quite a bit of knotweed in a few small clusters. Other species include arrowwood, catbrier, spicebush, jewelweed, multiflora rose, American pokeweed, cinnamon fern, goldenrod, porcelainberry, enchanter's nightshade, Japanese angelica, American hazelnut and sweet pepperbush.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|-----------------|------------|----------------------------------|-------|--|-----------------------------------|
| Unit: | 596 | Classification | IB2a3 | | <u>Management Concerns</u> |
| Acreage: | 0.17 | Is species composition changing? | No | | Deer Impact |
| Date: | 09/25/2012 | Is community structure changing? | No | | |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-------------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | red maple | >30' & 5-30' | No | | | Trash |
| Deciduous | white oak | <5' - >30' | No | | | |
| Hemicyptophytes | smartweed | <5' | No | | | |
| Wet Depression | smallspike false nettle | <5' | | | | |

Comments:

This unit is a closed forest with a wet soil bed. It is north of the White trail and a bit east of the end of Ashworth Avenue. Dominant canopy species is red maple and lots of ash is regenerating. Aside from the ash regeneration, there is not a lot of vegetation under 15', due to the wet soil that must be flooded at times. Species also present include cinnamon fern, northern lady fern, jewelweed, catbrier, goldenrods, spicebush, Virginia creeper, poison ivy, sweet pepperbush, arrowwood, common winterberry, cespitose smartweed, multiflora rose, white avens, climbing hempweed, warm season grass, mock orange and skunk cabbage. There is also some black alder in the canopy and a little bit of sweetgum and blackgum regeneration.

| | | | | | |
|-----------------|------------|----------------------------------|--------|--|-----------------------------------|
| Unit: | 597 | Classification | IIB2a2 | | <u>Management Concerns</u> |
| Acreage: | 0.25 | Is species composition changing? | Yes | | |
| Date: | 09/25/2012 | Is community structure changing? | Yes | | |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | swamp white oak | >30' | No | | | Trash |
| Deciduous | arrowwood | <5' & 5-30' | No | | | |
| Chamaephytes | silky dogwood | <5' & 5-30' | No | | | |
| Moist Depression | | | | | | |

Comments:

This is a small woodland just east of Forest Hill Road and a bit south of the park boundary. It is likely a vernal pond, as the soil is very moist and there is little vegetation under 15'. Some arrowwood and silky dogwood make up most of what vegetation is present. The canopy is mostly swamp white oak, but there is no oak regeneration. Regeneration consists of a little bit of red maple, ash species, slippery elm, sweetgum and one tulip poplar. Other species present include poison ivy, Japanese honeysuckle and rush species.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 598 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.28 Is species composition changing? No Deer Impact
Date: 09/25/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | pin oak | <5' - >30' | No | | | |
| Deciduous | arrowwood | <5' & 5-30' | No | | | |
| Chamaephytes | poison ivy | <5' & 5-30' | No | | | |
| Moist | | | | | | |
| Level | | | | | | |

Comments:

This is a small woodland unit between Forest Hill Road and the White trail, just north of Ashworth Avenue. Pin oak is the dominant canopy species but there is not a lot of regeneration. Other canopy species include a few red maple and a few green ash. Arrowwood and poison ivy dominate the understory. Other species present include grape, spicebush, trailing dewberry, red osier dogwood, blackhaw, multiflora rose and catbrier.

Unit: 599 **Classification** IB2a2 **Management Concerns**
Acreage: 0.25 Is species composition changing? No Deer Impact
Date: 09/25/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | <5' - >30' | No | | | |
| Deciduous | pin oak | <5' - >30' | No | | | |
| Chamaephytes | arrowwood | <5' & 5-30' | No | | | |
| Moist | spicebush | <5' & 5-30' | No | | | |
| Level | poison ivy | <5' - >30' | No | | | |

Comments:

This is a small closed forest unit east of Forest Hill Road and north of the White trail and the stream. Red maple and pin oak dominate the canopy and both are regenerating along with a little bit of hickory species and green ash. There is a lot of arrowwood, spicebush and poison ivy in the understory. Other species include goldenrod, royal fern, cinnamon fern, Japanese honeysuckle, sensitive fern, silky dogwood, catbrier and jewelweed.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 600 **Classification** IB2a2 **Management Concerns**
Acreeage: 0.71 Is species composition changing? Yes Deer Impact
Date: 10/01/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|--------------|---------------------|
| Closed Forest | pin oak | <5' & >30' | No | | Foot traffic | |
| Deciduous | red maple | <5' - >30' | No | | | |
| Chamaephytes | black cherry | <5' - >30' | No | | | |
| Moist | arrowwood | <5' & 5-30' | No | | | |
| Level | spicebush | <5' & 5-30' | No | | | |
| | poison ivy | <5' - >30' | No | | | |

Comments:

This unit is a closed forest dominated by pin oak, east of Forest Hill Road and north of Ashworth Avenue. The White trail runs through it. There are also a few red maple, black cherry, red oak, white mulberry and white oak in the canopy. Mostly red maple and black cherry regenerating. Very few oak seedlings and no oak saplings are present. The dense understory is a combination of arrowwood, spicebush, poison ivy and catbrier. Porcelainberry, Virginia creeper, Japanese knotweed, Japanese honeysuckle, multiflora rose, American pokeweed, trailing dewberry, Japanese barberry, jewelweed, American hazelnut, grape, catbrier, sweet pepperbush, Japanese stiltgrass, violets, elderberry, garlic mustard, American water-horehound, mad-dog skullcap, beggars-tick, common arrowhead and enchanter's nightshade are also present.

Unit: 601 **Classification** IIB2a2 **Management Concerns**
Acreeage: 0.39 Is species composition changing? Yes Deer Impact
Date: 10/01/2012 Is community structure changing? Yes Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|-----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | >30' & 5-30' | No | Other | | |
| Deciduous | red oak | >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Wet | multiflora rose | <5' & 5-30' | Yes | | | |
| Undulating | arrowwood | <5' & 5-30' | No | | | |
| | catbrier | <5' & 5-30' | No | | | |

Comments:

This is a woodland east of Forest Hill Road and the White trail. One of the streams runs through it. Red maple and red oak dominate the canopy, but green ash, sweetgum, blackgum and swamp white oak are also present. Only green ash and red maple are regenerating. The understory is a dense mix of arrowwood, spicebush, multiflora rose and catbrier with a lot of Japanese honeysuckle also. This unit is likely transitioning from a woodland toward a scrub or vineland due to the lack of regeneration and the invasive species moving in. Other species present include Virginia creeper, poison ivy, porcelainberry, sweet pepperbush, cinnamon fern, Japanese barberry, trailing dewberry, jewelweed, Japanese knotweed, northern lady fern, Japanese honeysuckle, grape, elderberry, warm season grass, white wood aster, goldenrod, small spike false nettle, small white aster, smartweed and oriental bittersweet.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 602 **Classification** IVA3a5 **Management Concerns**
Acreage: 0.10 Is species composition changing? No Deer Impact
Date: 10/01/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|------------------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous | jewelweed | <5' | No | | | |
| Deciduous | false nettle | <5' | No | | | |
| Hemicryptophytes | smartweed | <5' | No | | | |
| Wet | broadleaf arrowhead | <5' | No | | | |
| Level | arrow leaved tearthumb | <5' | No | | | |
| | sensitive fern | <5' | No | | | |

Comments:

This is a small herbaceous unit in a canopy gap. Some trees are present on the edges, these include red maple, slipper elm and green ash. There is a little bit of ash regeneration. A stream flows through the middle of the unit and various areas are wet. Species also present include warm season grass, Japanese knotweed, grape, goldenrod, cespitose smartweed, catbrier, multiflora rose, climbing hempweed, skunk cabbage, Allegheny monkeyflower, water pimpernel, common arrowhead, arrowwood, rush species, white wood aster and arrow leaved tearthumb.

Unit: 603 **Classification** IB2a2 **Management Concerns**
Acreage: 0.78 Is species composition changing? No Deer Impact
Date: 10/01/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|-----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | <5' - >30' | No | | | |
| Deciduous | pin oak | <5' & >30' | No | | | |
| Chamaephytes | green ash | <5' & 5-30' | No | | | |
| Moist | spicebush | <5' & 5-30' | No | | | |
| Undulating | arrowwood | <5' & 5-30' | No | | | |
| | multiflora rose | <5' & 5-30' | Yes | | | |

Comments:

This is a closed forest unit east of Forest Hill Road and west of part of the Great Swamp. A clear game trail runs through the middle of the unit. Red maple and pin oak dominate the canopy, but mostly green ash and red maple are regenerating. The understory is primarily spicebush and arrowwood with a few dense pockets of multiflora rose. There is also a lot of poison ivy in the herbaceous layer. Other species present include swamp white oak, sweetgum, white oak and sassafras, blackhaw, Virginia creeper, goldenrod, silky dogwood, jewelweed, catbrier, Japanese knotweed, white avens, Japanese honeysuckle, enchanter's nightshade, cinnamon fern, wild onion, northern lady fern, trailing dewberry, sensitive fern and oriental bittersweet.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 604 **Classification** IIB2a1 **Management Concerns**
Acreage: 0.20 Is species composition changing? No Deer Impact
Date: 10/01/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | pin oak | <5' & >30' | No | | | |
| Deciduous | red maple | <5' - >30' | No | | | |
| Phanerophytes | green ash | <5' & 5-30' | No | | | |
| Moist Level | arrowwood | <5' & 5-30' | No | | | |

Comments:

This is a small woodland unit east of Forest Hill Road at the northern part of the park boundary. Pin oak and red maple dominate the canopy with a little swamp white oak, black cherry and sweetgum also present. Red maple and green ash regeneration dominate the understory and there is also a fair amount of arrowwood in the understory. Other species regenerating include black cherry, sassafras, sweetgum, hickory species and American beech. Other species present are poison ivy, trailing dewberry, whorled yellow loosestrife, goldenrod, Japanese honeysuckle, multiflora rose, highbush blueberry Japanese knotweed, catbrier and spicebush.

Unit: 605 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.36 Is species composition changing? No Deer Impact
Date: 10/01/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | >30' | No | | | Trash |
| Deciduous | green ash | <5' - >30' | No | | | |
| Chamaephytes | multiflora rose | <5' & 5-30' | Yes | | | |
| Wet | spicebush | <5' & 5-30' | No | | | |
| Slope | sweet pepperbush | <5' | No | | | |

Comments:

This is part of the Great Swamp, just east of Forest Hill Road. One of the small streams runs through a portion of this unit. The canopy is mostly red maple and there is a lot of green ash regeneration. Multiflora rose is very dense through the understory with some spicebush mixed in. There is a lot of young sweet pepperbush in the herbaceous layer. This unit is likely very wet in the spring. Other species include poison ivy, jewelweed, arrowwood, blackhaw, Japanese knotweed, porcelainberry, silky dogwood, sensitive fern and catbrier.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 606 **Classification** IB2a2
Acreage: 0.06 Is species composition changing? No
Date: 10/01/2012 Is community structure changing? No

Management Concerns

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | red maple | <5' - >30' | No | | | |
| Deciduous | swamp white oak | >30' & 5-30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Wet | arrowwood | <5' & 5-30' | No | | | |
| Depression | poison ivy | <5' & 5-30' | No | | | |

Comments:

This is a small closed forest unit east of Forest Hill Road and southwest of a small Phragmites unit. It is a vernal pond that has dried up. The few canopy species present are red maple and swamp white oak. There are also some shrubs, including spicebush, arrowwood and multiflora rose. There is a little green ash, slippery elm and red maple regeneration. Other species present include water pimpernel, Japanese honeysuckle, jewelweed, sweet pepperbush, Virginia creeper, climbing hempweed, porcelainberry, goldenrod, Japanese knotweed, wild onion, cinnamon fern, sensitive fern, European privet and blackhaw.

Unit: 607 **Classification** IVA1a3
Acreage: 0.09 Is species composition changing? No
Date: 10/01/2012 Is community structure changing? No

Management Concerns

Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Herbaceous | Phragmites | <5' & 5-30' | Yes | | | Trash |
| Deciduous | jewelweed | <5' | No | | | |
| Geophytes | porcelainberry | <5' & 5-30' | Yes | | | |
| Moist | Japanese honeysuckle | <5' | Yes | | | |
| Undulating | sensitive fern | <5' | No | | | |

Comments:

This is a small Phragmites unit north of the Great Swamp near the eastern border of the park. There are a few canopy trees including red maple and slippery elm. Other species present include Allegheny monkeyflower, Japanese knotweed, poison ivy, bittersweet nightshade, spicebush, multiflora rose, skunk cabbage, common dock, trailing dewberry, American pokeweed, sweet pepperbush, smallspike false nettle, climbing hempweed, bindweed and willow herb.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 608 **Classification** IIB2a2 **Management Concerns**
Acreeage: 0.68 Is species composition changing? No Deer Impact
Date: 10/03/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | <5' - >30' | No | | | Trash |
| Deciduous | green ash | <5' - >30' | No | | | |
| Chamaephytes | catbrier | <5' & 5-30' | No | | | |
| Moist | sweet pepperbush | <5' & 5-30' | No | | | |
| Undulating | multiflora rose | <5' & 5-30' | Yes | | | |
| | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a large woodland stretching from the White trail east into the park, mostly between the two main streams of the western portion of the Great Swamp. The canopy is primarily red maple and green ash, but red oak, white oak, swamp white oak, pin oak, sweetgum and blackgum are also present. The understory is a dense mix of catbrier, multiflora rose, spicebush and sweet pepperbush. Arrowwood is also present, as is a fair amount of tree regeneration (green ash, red maple, hickory species, Norway Maple, sweetgum, slippery elm and blackgum). Other species include poison ivy, Virginia creeper, cinnamon fern, New York fern, Japanese honeysuckle, Pennsylvania blackberry, lowbush blueberry and white avens.

Unit: 609 **Classification** IIB2a2 **Management Concerns**
Acreeage: 0.52 Is species composition changing? No Deer Impact
Date: 10/03/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|-----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | <5' - >30' | No | | | |
| Deciduous | green ash | <5' - >30' | No | | | |
| Chamaephytes | catbrier | <5' & 5-30' | No | | | |
| Moist | multiflora rose | <5' & 5-30' | Yes | | | |
| Undulating | spicebush | <5' & 5-30' | No | | | |
| | arrowwood | <5' & 5-30' | No | | | |

Comments:

This unit is a red maple/green ash woodland on both sides of the northern stream vein that is on the western end of the Great Swamp. In addition to red maple and green ash, pin oak, red oak, swamp white oak, sweetgum, blackgum and slippery elm are present in the canopy. There is good regeneration of all of these species, but primarily green ash and red maple. The understory is a dense mix of catbrier, multiflora rose, spicebush, arrowwood and sweet pepperbush. Other species found include cinnamon fern, Virginia creeper, poison ivy, jewelweed, Canada mayflower, Pennsylvania blackberry, lowbush blueberry, European buckthorn, white avens, Japanese knotweed, Japanese honeysuckle, New York fern, elderberry, smartweed, cespitose smartweed, goldenrod, wild yam, grape, large white aster and sensitive fern.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 610 **Classification** III B1d **Management Concerns**
Acreage: 0.08 Is species composition changing? No Deer Impact
Date: 10/03/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|-----------------|---------------|---------------|-------------------|-------------|---------------------|
| Scrub | arrowwood | <5' & 5-30' | No | | | |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | multiflora rose | <5' & 5-30' | Yes | | | |
| Surface water | catbrier | <5' | No | | | |
| Depression | smartweed | <5' | Yes | | | |
| | jewelweed | <5' | No | | | |

Comments:

This scrub unit is part of the northern stream at the west end of the Great Swamp. It runs through a red maple/green ash woodland dominated by arrowwood, spicebush, multiflora rose and catbrier. These species are also present within this unit on the banks of the stream. Herbaceous species present on the stream banks of this unit are primarily jewelweed, smartweed and grasses. Other species present include skunk cabbage, elderberry, poison ivy, Virginia creeper, trailing dewberry, Japanese honeysuckle, common beggars-tick, water pimpernel, Japanese stillgrass and climbing hempweed.

Unit: 611 **Classification** IB2a2 **Management Concerns**
Acreage: 0.24 Is species composition changing? No Deer Impact
Date: 10/03/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | <5' - >30' | No | | | Trash |
| Deciduous | green ash | <5' - >30' | No | | | |
| Chamaephytes | arrowwood | <5' & 5-30' | No | | | |
| Surface water | sweet pepperbush | <5' & 5-30' | No | | | |
| Depression | jewelweed | <5' | No | | | |
| | skunk cabbage | <5' | No | | | |

Comments:

This is a closed forest unit that has a mostly clear understory due to the swamp. The canopy is mostly red maple and green ash. There is a lot of arrowwood and young sweet pepperbush but the rest of the understory is herbaceous species. Other species include poison ivy, Allegheny monkeyflower, sensitive fern, cool season grass, common beggars-tick, climbing hempweed, common dock, Phragmites, cinnamon fern, water pimpernel, cardinal flower, catbrier, smartweed, spicebush, elderberry, white wood aster, goldenrod, Virginia creeper and multiflora rose. Regeneration of red maple, green ash and slippery elm is occurring.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 612 **Classification** IIB2a2 **Management Concerns**
Acreeage: 0.36 Is species composition changing? No Deer Impact
Date: 10/03/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | green ash | <5' - >30' | No | | | Trash |
| Deciduous | red maple | <5' - >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Wet | arrowwood | <5' & 5-30' | No | | | |
| Undulating | jewelweed | <5' | No | | | |
| | smartweed | <5' | No | | | |

Comments:

This is a woodland unit that is part of the Great Swamp. Green ash and red maple dominate the canopy but there are also several black alders and a few slipper elms. The understory is spotted with spicebush and arrowwood with lots of jewelweed and smartweed in the herbaceous layer. The stream veins run throughout this unit and therefore it is very wet in most places. Other species present include poison ivy, Virginia creeper, multiflora rose, white avens, porcelainberry, Japanese knotweed, Japanese stiltgrass, skunk cabbage, common winterberry, catbrier, cespitose smartweed, water horehound, common dock, climbing hempweed, water pimpernel, Allegheny monkeyflower, rush species, Devil's walking stick and cinnamon fern.

Unit: 613 **Classification** IIB2a2 **Management Concerns**
Acreeage: 0.48 Is species composition changing? No Deer Impact
Date: 10/03/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|-------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | <5' - >30' | No | | | Trash |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | arrowwood | <5' & 5-30' | No | | | |
| Wet | skunk cabbage | <5' | No | | | |
| Undulating | jewelweed | <5' | No | | | |
| | climbing hempweed | <5' | No | | | |

Comments:

This is a large swampy woodland. The canopy is almost solely red maple, but there are a couple swamp white oak, slippery elm and a silver maple. The understory is primarily spicebush and arrowwood mixed with a lot of skunk cabbage in the herbaceous layer. The unit consists of many stream tributaries and is very wet with some areas having 2' deep streams. Other species include multiflora rose, porcelainberry, poison ivy, sweet pepperbush, Japanese barberry, sensitive fern, Japanese knotweed, smartweed, white wood aster, rush species, common beggars-tick, common dock, warm season grass, wild onion, mugwort, elderberry, bittersweet nightshade and willowherb.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 614 **Classification** IVA1a2 **Management Concerns**
Acreage: 0.25 Is species composition changing? No Deer Impact
Date: 10/03/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous | Phragmites | <5' & 5-30' | Yes | | | Trash |
| Deciduous | jewelweed | <5' | No | | | |
| Geophytes | skunk cabbage | <5' | No | | | |
| Wet Level | porcelainberry | <5' | Yes | | | |

Comments:

This is a Phragmites unit amidst the Great Swamp. There is a small portion of a woodland unit that comes into this area from the northern border of the unit, sort of making this unit a 'U'. A stream borders the eastern edge. Other species present include climbing hempweed, spicebush, poison ivy, arrowwood, Virginia creeper, willowherb, sensitive fern and dogwood species.

Unit: 615 **Classification** VIIC **Management Concerns**
Acreage: 0.21 Is species composition changing? No Invasive Sp.
Date: 10/03/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | porcelainberry | <5' - >30' | Yes | | | |
| Deciduous | grape spp. | <5' - >30' | No | | | |
| Lianas | catbrier | <5' & 5-30' | No | | | |
| Wet Level | | | | | | |

Comments:

This is a vineland in the Great Swamp, just south of the Phragmites unit. Porcelainberry and grape have ascended and killed two trees, there are a couple surviving red maples on the outer edges. Other species present include dogwood species, elderberry, sensitive fern, spicebush and arrowwood.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 616 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.75 Is species composition changing? No Ecol. Interact/Ref. Site
Date: 10/03/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | <5' - >30' | No | | | Trash |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | arrowwood | <5' & 5-30' | No | | | |
| Surface water | jewelweed | <5' | No | | | |
| Undulating | poison ivy | <5' | No | | | |

Comments:

This is a nice swamp woodland. Red maple dominates the canopy but there are a couple green ash trees and a couple black alders, one slippery elm and one grey birch. There is a nice shrub understory comprised of spicebush and arrowwood with some multiflora rose and catbrier as well as tree regeneration. The regenerating species include green ash, sweetgum, red maple and black alder. There are many herbaceous species as well including water plantain and white turtlehead. Royal fern, sensitive fern skunk cabbage, porcelainberry, cinnamon fern, smartweed, wild onion, garlic mustard, Virginia creeper, mad dog skullcap, water pimpernel, elderberry, Pennsylvania blackberry, climbing hempweed, Phragmites, white wood aster, wild yam, sweet pepperbush and goldenrod.

Unit: 617 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.33 Is species composition changing? No
Date: 10/10/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | <5' - >30' | No | | | Trash |
| Deciduous | arrowwood | <5' & 5-30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Wet | | | | | | |
| Undulating | | | | | | |

Comments:

This is a very dense swamp unit. Red maple dominates the canopy with primarily arrowwood in the understory. Other canopy species include black alder, grey birch and green ash. There is a little bit of slippery elm regenerating. Other species present include mad dog skullcap, jewelweed, climbing hempweed, arrowhead, warm season grass, skunk cabbage, poison ivy, Virginia creeper, smartweed, multiflora rose, common beggars-tick, elderberry, poison ivy, cinnamon fern, white avens and node flower herb.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|-----------------|------------|----------------------------------|--------|--|-----------------------------------|
| Unit: | 618 | Classification | IIB2a2 | | <u>Management Concerns</u> |
| Acreage: | 0.09 | Is species composition changing? | Yes | | Invasive Sp. |
| Date: | 10/10/2012 | Is community structure changing? | Yes | | Deer Impact |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | red maple | <5' - >30' | No | | | Trash |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | catbrier | <5' & 5-30' | No | | | |
| Wet | porcelainberry | <5' & 5-30' | Yes | | | |
| Slope | | | | | | |

Comments:

This is a small woodland north of an herbaceous unit and north of the White trail. Red maple dominates the canopy and sapling layer but a combination of shrubs and vines are dominating the rest of the understory. There is a lot of small stream tributaries at the northern end of the unit but none that lead south into the nearby Phragmites unit. This unit is distinctly different from other units in the swamp area in that there is a clear transitioning happening from a nice swamp woodland into a vineland. Other species present include Japanese stiltgrass, warm season grass, rush species, arrowwood, multiflora rose, jewelweed, smartweed, skunk cabbage, cinnamon fern, poison ivy, Virginia creeper, wild onion and common dock.

| | | | | | |
|-----------------|------------|----------------------------------|--------|--|-----------------------------------|
| Unit: | 619 | Classification | IIB2a2 | | <u>Management Concerns</u> |
| Acreage: | 0.26 | Is species composition changing? | No | | |
| Date: | 10/10/2012 | Is community structure changing? | No | | |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | pin oak | <5' & >30' | No | | | |
| Deciduous | red maple | <5' - >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | catbrier | <5' & 5-30' | No | | | |
| Slope | poison ivy | <5' & 5-30' | No | | | |

Comments:

This unit is a small woodland north of the White trail and south of part of the Great Swamp. Pin oak and red maple dominate the understory. Both are regenerating, along with sweetgum and black cherry. There is also a little bit of swamp white oak and blackgum in the canopy. The understory is mostly spicebush and catbrier. Other species present include multiflora rose, Japanese knotweed, porcelainberry, Virginia creeper, English ivy, common winterberry, cinnamon fern, sweet pepperbush, spinulous wood fern and goldenrod.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 620 **Classification** IB2a2 **Management Concerns**
Acreage: 1.31 Is species composition changing? No Deer Impact
Date: 10/10/2012 Is community structure changing? No Ecol. Interact/Ref. Site

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | <5' - >30' | No | Fence | | Trash |
| Deciduous | green ash | <5' - >30' | No | | | |
| Chamaephytes | white oak | >30' & 5-30' | No | | | |
| Moist | pin oak | <5' - >30' | No | | | |
| Undulating | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a nice, large closed forest unit. It is north of the Great Swamp and east of Forest Hill Road. Red maple is the primary canopy species but pin oak, white oak and green ash are also present. There is considerable tree regeneration, this includes green ash, sweetgum, red maple, pin oak, black cherry and sassafras. Spicebush dominates the understory. Species also present include sensitive fern, arrowwood, multiflora rose, jewelweed, poison ivy, Virginia creeper, sweet pepperbush, white avens, hayscented fern, Canada mayflower, catbrier, goldenrod, wild onion and trailing dewberry.

Unit: 621 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.92 Is species composition changing? Yes invasive Sp.
Date: 10/10/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | pin oak | <5' - >30' | No | | | |
| Deciduous | red maple | <5' - >30' | No | | | |
| Chamaephytes | catbrier | <5' & 5-30' | No | | | |
| Moist | grape spp. | <5' & 5-30' | No | | | |
| Undulating | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a large woodland on the northern edge of the west part of the Great Swamp. Pin oak and red maple dominate the canopy but the understory has been consumed by catbrier and grape. There is also a fair amount of spicebush that the catbrier and grape are climbing on. Other species include swamp white oak, black cherry, arrowwood, Canada mayflower, poison ivy, jewelweed, cinnamon fern, hayscented fern and wild yam. There is some sassafras regeneration.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 622 **Classification** VIIIIC **Management Concerns**
Acreage: 1.91 Is species composition changing? No Invasive Sp.
Date: 10/10/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | oriental bittersweet | <5' - >30' | Yes | | | |
| Deciduous | Japanese honeysuckle | <5' - >30' | Yes | | | |
| Lianas | porcelainberry | <5' & 5-30' | Yes | | | |
| Moist | catbrier | <5' & 5-30' | No | | | |
| Undulating | multiflora rose | <5' & 5-30' | Yes | | | |
| | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a large vineland south west of the Recreation Center tennis courts. There is a fair amount of black locust and pin oak in some areas but the vines are all over them. Vines are primarily oriental bittersweet, Japanese honeysuckle and porcelainberry, and they are climbing on catbrier, spicebush and multiflora rose. A few other canopy species include swamp white oak, red oak, red maple, silver maple and black cherry. Only green ash, sweetgum and pin oak are regenerating. Other species include American pokeweed, poison ivy, Devil's walking stick, Virginia creeper, jewelweed, grape, wild onion, wineberry and Japanese knotweed.

Unit: 623 **Classification** IB2a2 **Management Concerns**
Acreage: 0.40 Is species composition changing? No Ecol. Interact/Ref. Site
Date: 10/15/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | <5' - >30' | No | | | |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | cinnamon fern | <5' | No | | | |
| Wet | skunk cabbage | <5' | No | | | |
| Undulating | poison ivy | <5' & 5-30' | No | | | |

Comments:

This is a nice intact swamp forest just south of a large vineland. Red maple dominates the canopy and spicebush dominates the understory. Cinnamon fern and skunk cabbage are also dominant. The ground is mostly wet with several areas having surface water, parts of the stream system. Other species present include porcelainberry, Virginia creeper, multiflora rose, jewelweed, arrowwood, Japanese honeysuckle, curly dock, cool season grass, Canada mayflower, smartweed, wild onion, sensitive fern, catbrier, moss and oriental bittersweet. There is some red maple and sassafras regeneration.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 624 **Classification** IB2a2 **Management Concerns**
Acreage: 0.34 Is species composition changing? Yes Invasive Sp.
Date: 10/15/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | silver maple | >30' | No | | | Trash |
| Deciduous | red maple | >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | Japanese honeysuckle | <5' & 5-30' | No | | | |
| Undulating | catbrier | <5' & 5-30' | No | | | |
| | oriental bittersweet | <5' & 5-30' | No | | | |

Comments:

This is a slightly disturbed closed forest unit near a large vineland. Silver maple and red maple dominate the canopy but only slippery elm, black cherry and green ash regenerating. Spicebush is fairly dense through the understory but the herbaceous layer is dominated by a combination of a Japanese honeysuckle, catbrier and oriental bittersweet. Other species present include Jewelweed, garlic mustard, American pokeweed, porcelainberry, Japanese honeysuckle, poison ivy, Virginia creeper, multiflora rose, trailing dewberry, arrowwood, white snake root, white avens, skunk cabbage, wild onion, smartweed, sensitive fern, mugwort, Devil's walking stick, climbing hempweed, Phragmites, dogwood species, bedstraw and violets.

Unit: 625 **Classification** IB2a2 **Management Concerns**
Acreage: 0.22 Is species composition changing? Yes Invasive Sp.
Date: 10/15/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | >30' & 5-30' | No | Fence | | Trash |
| Deciduous | white oak | >30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Undulating | | | | | | |

Comments:

This is a small closed forest unit just southwest of the vineland and north of a Phragmites unit. A fence serves as the northern border. Red maple and white oak dominate the canopy with spicebush dominating the understory. There is some pin oak and sweetgum regeneration, but nothing else. Vines, such as Japanese honeysuckle, oriental bittersweet and catbrier are coming into the understory, making this unit susceptible to becoming a vineland. Other species include grape, wild onion, arrowwood, poison ivy, American pokeweed, Virginia creeper, trailing dewberry, multiflora rose and porcelainberry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|-----------------|------------|----------------------------------|-------|--|-----------------------------------|
| Unit: | 626 | Classification | IB2a2 | | <u>Management Concerns</u> |
| Acreage: | 0.40 | Is species composition changing? | Yes | | Deer Impact |
| Date: | 10/15/2012 | Is community structure changing? | No | | Invasive Sp. |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | red maple | >30' & 5-30' | No | | | |
| Deciduous | sweetgum | >30' & 5-30' | No | | | |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Slope | | | | | | |

Comments:

This is a closed forest unit. It is north of the Great Swamp and southwest of the Recreation Center. The dominant canopy species are sweetgum and red maple, but sassafras, black cherry and pin oak are also present. The understory is a combination of mostly spicebush and Japanese honeysuckle. There is sassafras, black cherry, green ash, American beech and blackgum regenerating. Other species include arrowwood, Canada mayflower, Japanese barberry, cinnamon fern, poison ivy, oriental bittersweet, porcelainberry, multiflora rose, highbush blueberry, trailing dewberry, cool season grass, catbrier, wild onion and grape species.

| | | | | | |
|-----------------|------------|----------------------------------|--------|--|-----------------------------------|
| Unit: | 627 | Classification | IIB2a2 | | <u>Management Concerns</u> |
| Acreage: | 0.17 | Is species composition changing? | No | | Deer Impact |
| Date: | 10/15/2012 | Is community structure changing? | No | | Invasive Sp. |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | red maple | >30' | No | | | |
| Deciduous | spicebush | <5' & 5-30' | No | | | |
| Chamaephytes | arrowwood | <5' & 5-30' | No | | | |
| Moist | porcelainberry | <5' & 5-30' | Yes | | | |
| Level | poison ivy | <5' | No | | | |

Comments:

This is a small woodland unit on the western border of the park. A vineland, out of park property, is just to the north and is starting to spread into this unit. A Phragmites/Japanese knotweed unit is also next to this unit and Japanese knotweed is making its way in. The canopy is mostly red maple with two white oaks and a pin oak. There are a couple of green ash saplings and a little bit of cherry and hickory species regenerating. The understory is sparse but there is a little spicebush and arrowwood and porcelainberry and Japanese knotweed are thick in some small spots. Other species include oriental bittersweet, poison ivy, Japanese honeysuckle, trailing dewberry, multiflora rose, sensitive fern, Virginia creeper, wild onion and catbrier.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 628 **Classification** IB2a2 **Management Concerns**
Acreage: 3.14 Is species composition changing? No Deer Impact
Date: 10/15/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | red maple | >30' | No | Fence | | Trash |
| Deciduous | pin oak | <5' - >30' | No | | | |
| Chamaephytes | sweetgum | <5' - >30' | No | | | |
| Moist | spicebush | <5' & 5-30' | No | | | |
| Undulating | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| | multiflora rose | <5' & 5-30' | No | | | |

Comments:

This is a closed forest unit with mostly red maple, pin oak and sweetgum in the canopy. Black cherry, sweetgum, pin oak, mulberry, green ash, sassafras and tulip poplar are also in the understory. Green ash, sassafras, sweetgum, pin oak, black cherry and swamp white oak are regenerating. The understory is mostly spicebush, multiflora rose and Japanese honeysuckle. Other species include Virginia creeper, Japanese barberry, poison ivy, oriental bittersweet, trailing dewberry, grape species, Japanese knotweed, blackhaw, American pokeweed, arrowwood, hayscented fern, New York fern and catbrier.

Unit: 629 **Classification** IIB2a2 **Management Concerns**
Acreage: 0.74 Is species composition changing? No Invasive Sp.
Date: 10/23/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|-----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | <5' - >30' | No | | | Dumping |
| Deciduous | pin oak | <5' - >30' | No | | | Trash |
| Chamaephytes | spicebush | <5' & 5-30' | No | | | |
| Moist | multiflora rose | <5' & 5-30' | Yes | | | |
| Slope | catbrier | <5' & 5-30' | No | | | |
| | poison ivy | <5' & 5-30' | No | | | |

Comments:

This is a woodland southwest of the Recreation Center and north of the Great Swamp. The primary tree species include red maple, pin oak, sweetgum and black cherry. The understory is a dense combination of spicebush, multiflora rose and catbrier. Poison ivy is also fairly dominant in the understory as well as on many canopy trees. Regeneration includes red maple, pin oak, black locust, Norway maple, sweetgum and green ash. Other species present include oriental bittersweet, garlic mustard, arrowwood, Japanese honeysuckle, wild onion, Rubus species, Japanese barberry, Canada mayflower, white avens, Virginia creeper, trailing dewberry, catbrier, American pokeweed and Japanese boxwood.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 630 **Classification** VIIIIC **Management Concerns**
Acreage: 0.97 Is species composition changing? No Deer Impact
Date: 10/16/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | porcelainberry | <5' - >30' | Yes | | | Dumping |
| Deciduous | oriental bittersweet | <5' & 5-30' | Yes | | | Trash |
| Lianas | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Moist | multiflora rose | <5' & 5-30' | Yes | | | |
| Undulating | fox grape | <5' & 5-30' | No | | | |
| | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a large vineland just west of the Recreation Center tennis courts. As with units surrounding this one, there is quite a bit of dumping. The major vine is porcelainberry. It climbs up trees (black cherry, tree of heaven, red maple, mulberry and Norway maple) and spicebush. Species also present include American pokeweed, garlic mustard, black locust, white wood aster, mugwort, green ash, trailing dewberry, smartweed and wild onion.

Unit: 631 **Classification** VIIIIC **Management Concerns**
Acreage: 1.17 Is species composition changing? No Invasive Sp.
Date: 10/23/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | porcelainberry | <5' - >30' | Yes | | | Dumping |
| Deciduous | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Lianas | oriental bittersweet | <5' - >30' | Yes | | | |
| Moist | multiflora rose | <5' & 5-30' | Yes | | | |
| Slope | Rubus spp. | <5' & 5-30' | No | | | |

Comments:

This is a vineland on the western side of the park, opposite the tennis courts. There are a few remaining canopy trees on the edge. These are green ash, black walnut, black locust and red maple. All have oriental bittersweet and porcelainberry climbing upon them. The vineland is primarily porcelainberry and Japanese honeysuckle. There is also a lot of multiflora rose and Rubus species under the two dominant vines. Other species present include American pokeweed, garlic mustard, poison ivy, wineberry, white avens, spicebush, European privet, Virginia creeper, white snake root, wild onion, pilewort, goldenrod, thistle, rush species, small spike false nettle, small white aster, smartweed and elderberry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 632 **Classification** IIB2a2 **Management Concerns**
Acreeage: 3.26 Is species composition changing? No Deer Impact
Date: 10/16/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sweetgum | <5' - >30' | No | | | |
| Deciduous | red maple | <5' - >30' | No | | | |
| Chamaephytes | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | spicebush | <5' & 5-30' | No | | | |
| Undulating | Japanese honeysuckle | <5' | Yes | | | |
| | oriental bittersweet | <5' & 5-30' | No | | | |

Comments:

This is a large, fairly disturbed woodland with some spots having more canopy cover than others. The canopy is pretty diverse but sweetgum and red maple are mostly dominant. Other canopy species include green ash, black cherry, Norway maple, sassafras, pin oak and slippery elm. The understory is an even mix of shrubs and vines. Primarily multiflora rose and spicebush mixed with a lot of Japanese honeysuckle, oriental bittersweet, poison ivy, porcelainberry and trailing dewberry. There is a good amount of regeneration, green ash, sweetgum, black oak, pin oak, sassafras and hickory species, but the vines are taking some of them over. Other species present include common winterberry, arrowwood, Virginia creeper, garlic mustard, white avens, American pokeweed, goldenrod, catbrier, cutleaf blackberry, enchanter's nightshade and mugwort.

Unit: 633 **Classification** IVA3a5 **Management Concerns**
Acreeage: 0.13 Is species composition changing? No Invasive Sp.
Date: 10/18/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous | Japanese knotweed | <5' & 5-30' | Yes | | | |
| Deciduous | mugwort | <5' | No | | | |
| Hemicryptophytes | Japanese honeysuckle | <5' | Yes | | | |
| Moist | multiflora rose | <5' & 5-30' | Yes | | | |
| Undulating | | | | | | |

Comments:

This is an herbaceous community just west of the tennis courts with its dominant species being Japanese knotweed. There are a couple canopy trees, silver maple, Norway maple, black locust and tree of heaven, these are also regenerating a little. There is a lot of dumping on the edge of the unit. Other species include wild onion, poison ivy, white avens, English ivy, spicebush, oriental bittersweet, Asiatic daylily, porcelainberry and Phragmites.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 634 **Classification** IB2a3 **Management Concerns**
Acreage: 0.32 Is species composition changing? Yes Invasive Sp.
Date: 10/16/2012 Is community structure changing? Yes

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | Norway maple | >30' & 5-30' | Yes | Fence | | Dumping |
| Deciduous | garlic mustard | <5' | Yes | | | Trash |
| Hemicryptophytes | Japanese honeysuckle | <5' | Yes | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a very empty and disturbed unit west of the tennis courts, directly adjacent to a large vineland. The closed canopy is almost entirely Norway maple, but a few black cherry trees and a couple of red maples are also present. The understory is sparse. There is a fair amount of garlic mustard and Japanese honeysuckle, but very little else. There is a lot of old Seaview dumping in this unit and the remains of a small chain link fence, possibly part of old Seaview property. Other species include poison ivy, spicebush, wild onion, Virginia creeper, English ivy, multiflora rose, oriental bittersweet and porcelainberry.

Unit: 635 **Classification** IIB2a6 **Management Concerns**
Acreage: 0.25 Is species composition changing? Yes Invasive Sp.
Date: 10/16/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | Norway maple | >30' & 5-30' | Yes | | | Dumping |
| Deciduous | oriental bittersweet | <5' - >30' | Yes | | | Trash |
| Lianas | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | Japanese honeysuckle | <5' | Yes | | | |
| Slope | garlic mustard | <5' | Yes | | | |

Comments:

This is a woodland at the edge of the Norway maple forest that has little understory vegetation and lots of Seaview dumping. This unit is sort of a transition from the empty understory unit to the spicebush/multiflora rose/ Japanese honeysuckle unit. There is less canopy cover here but black cherry, Norway maple, green ash, silver maple, sweetgum, tree of heaven, red maple and mulberry are present. Understory vegetation is mostly oriental bittersweet, multiflora rose, Japanese honeysuckle and garlic mustard. Other species present include English ivy, spicebush, poison ivy, arrowwood, wild onion, American pokeweed, wineberry, trailing dewberry, Virginia creeper and porcelainberry. There is some sweetgum, Norway maple, green ash and sassafras regeneration.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 636 **Classification** IVA3a5 **Management Concerns**
Acreage: 0.25 Is species composition changing? No Invasive Sp.
Date: 10/23/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|-----------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous | mugwort | <5' & 5-30' | Yes | Road | | |
| Deciduous | American pokeweed | <5' & 5-30' | No | | | |
| Hemicyptophytes | porcelainberry | <5' & 5-30' | Yes | | | |
| Urban fill | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Level | oriental bittersweet | <5' & 5-30' | Yes | | | |
| | path rush | <5' | No | | | |

Comments:

This unit is a road and the herbaceous species that are along its edges. The road stretches from the north side of the tennis courts to the edge of Parks' property at the Farm Colony buildings. It is mostly invasive species along the roadside. A few edge canopy species include Norway maple, silver maple, tree of heaven, sweet cherry and black cherry. There is a small amount of sassafras regeneration occurring along the road edge. Other species present include Japanese knotweed, multiflora rose, garlic mustard, spicebush, wineberry, white avens, poison ivy, Virginia creeper, stinging nettle, smartweed, pilewort, goldenrod, black raspberry, small white aster and common mullein.

Unit: 637 **Classification** IB2a2 **Management Concerns**
Acreage: 0.86 Is species composition changing? Yes Invasive Sp.
Date: 10/23/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | black oak | <5' - >30' | No | Road | | Dumping |
| Deciduous | black cherry | <5' & 5-30' | No | | | Trash |
| Chamaephytes | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | spicebush | <5' & 5-30' | No | | | |
| Slope | Japanese honeysuckle | <5' | Yes | | | |
| | poison ivy | <5' & 5-30' | No | | | |

Comments:

This is a small closed forest with Farm Colony roads to the north and east, making this unit triangular. Most of the older canopy trees are black oak, with a lot of black cherry regeneration. Shrubs, multiflora rose and spicebush, are fairly dominant but vines, Japanese honeysuckle and poison ivy, are close behind in dominance. The areas closest to the roads have more vines and herbs. Other species present in the canopy include Norway maple, silver maple and sweet gum. Regeneration includes sassafras, black oak, black cherry, Norway maple, sweetgum and silver maple. Species also present include American pokeweed, porcelainberry, oriental bittersweet, garlic mustard, trailing dewberry, mugwort, wild onion and cutleaf blackberry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 638 **Classification** IB2a2
Acreeage: 2.38 Is species composition changing? Yes
Date: 10/23/2012 Is community structure changing? Yes

Management Concerns

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | sweetgum | <5' - >30' | No | Road | | Dumping |
| Deciduous | silver maple | >30' & 5-30' | No | Other | | Trash |
| Chamaephytes | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | Japanese honeysuckle | <5' | Yes | | | |
| Undulating | porcelainberry | <5' - >30' | Yes | | | |
| | oriental bittersweet | <5' - >30' | Yes | | | |

Comments:

This is a closed forest unit west and north of the tennis courts. The Farm Colony roads are on part of the east and west border. There is some old dumping as well as what smells like and appears to be sewage coming up out of an old drain cover and flowing down the slope to the northwest, right up to a Farm Colony road and building. The canopy is primarily sweetgum and silver maple, but black oak, tulip poplar, black locust and American catalpa are also present. However, regeneration is almost solely sweetgum. Furthermore, while multiflora rose dominates the understory vines such as porcelainberry, oriental bittersweet and Japanese honeysuckle are very dominant and ascending most trees. Species also present include white avens, poison ivy, Virginia creeper, garlic mustard, wineberry, Japanese knotweed, spicebush, grape species, American pokeweed, arrowwood, trailing dewberry, wild onion, lamb's quarters, mugwort, black raspberry, cutleaf blackberry and northern lady fern.

Unit: 639 **Classification** IB2a2
Acreeage: 1.73 Is species composition changing? Yes
Date: 10/23/2012 Is community structure changing? Yes

Management Concerns

Deer Impact
 Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Closed Forest | sweetgum | <5' - >30' | No | Road | | Dumping |
| Deciduous | black oak | >30' & 5-30' | No | Foundation | | Trash |
| Lianas | Japanese honeysuckle | <5' | Yes | | | |
| Moist | oriental bittersweet | <5' - >30' | Yes | | | |
| Slope | multiflora rose | <5' & 5-30' | Yes | | | |
| | spicebush | <5' & 5-30' | No | | | |

Comments:

This is a closed forest unit stretching northeast from the western border of the park. The Farm Colony road is in part of the unit. There is also a small Farm Colony building in this unit and other old dumping. The canopy is mostly sweetgum but a fair amount of black oak is also present. American beech, sassafras, pin oak, red maple and Norway maple are also present in the canopy with sassafras, black cherry, sweetgum, red maple, white oak and green ash regenerating. The understory is a carpet of Japanese honeysuckle with some multiflora rose and spicebush mixed in with oriental bittersweet covering many shrubs and ascending many trees. Other species present include cinquefoil, cool season grass, Christmas fern, white wood aster, white avens, Japanese knotweed, English ivy, trailing dewberry, poison ivy, Virginia creeper, highbush blueberry, arrowwood, Japanese barberry and garlic mustard.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 640 **Classification** VIIIIC **Management Concerns**
Acreage: 0.22 Is species composition changing? No Invasive Sp.
Date: 10/23/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | porcelainberry | <5' & 5-30' | Yes | | | |
| Deciduous | mugwort | <5' & 5-30' | Yes | | | |
| Lianas | | | | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a porcelainberry vineland that has a lot of mugwort surrounding it. It is between the west side of the soccer field and the Farm Colony road. Porcelainberry climbs on mugwort, Phragmites and tops some young sweetgum and silver maple saplings. A few canopy species on the edge include silver maple and green ash. Other species include oriental bittersweet, Japanese honeysuckle and bedstraw.

Unit: 641 **Classification** IIB2a6 **Management Concerns**
Acreage: 0.65 Is species composition changing? No Invasive Sp.
Date: 10/23/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | Norway maple | >30' & 5-30' | Yes | Road | | Dumping |
| Deciduous | porcelainberry | <5' & 5-30' | Yes | | | Trash |
| Lianas | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Urban fill | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Undulating | mugwort | <5' & 5-30' | Yes | | | |

Comments:

This is a woodland that extends over the northern Farm Colony road. An old building is on the northern border of this unit. There are mostly Norway maples in the canopy but also some silver maple, sweetgum, sassafras, white mulberry, American catalpa, black cherry and tree of heaven. Regeneration includes sassafras, sweetgum, black locust and white oak. The understory is mostly vines with a lot of mugwort mixed in. Other species present include smartweed, path rush, wineberry, American pokeweed, Japanese stiltgrass, cool season grass, poison ivy, Virginia creeper, multiflora rose, bur cucumber, wild onion, goldenrod, garlic mustard, stinging nettle, Pennsylvania blackberry and catbrier.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 642 **Classification** IB2a3 **Management Concerns**
Acreage: 0.20 Is species composition changing? No Invasive Sp.
Date: 10/26/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | black locust | >30' & 5-30' | Yes | | | Trash |
| Deciduous | silver maple | >30' & 5-30' | No | | | |
| Hemicryptophytes | American pokeweed | <5' & 5-30' | No | | | |
| Moist | mugwort | <5' & 5-30' | Yes | | | |
| Knoll | Japanese honeysuckle | <5' | Yes | | | |

Comments:

This is a small closed forest unit just west of the soccer field and behind the playground. Black locust and silver maple are dominant in the canopy. There is a sweetgum and London planetree at the south end of the unit. A few black cherry trees are regenerating but no other species regeneration was seen. The understory is a dense layer of American pokeweed and mugwort with Japanese honeysuckle covering the forest floor. Species also present include garlic mustard, oriental bittersweet, wineberry, multiflora rose, poison ivy, black raspberry, English ivy, porcelainberry, wild onion and cool season grass.

Unit: 643 **Classification** VIIIIC **Management Concerns**
Acreage: 0.14 Is species composition changing? No Invasive Sp.
Date: 10/26/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Vineland | oriental bittersweet | <5' & 5-30' | Yes | | | Trash |
| Deciduous | Japanese honeysuckle | <5' | Yes | | | |
| Lianas | poison ivy | <5' & 5-30' | No | | | |
| Moist | mugwort | <5' | Yes | | | |
| Knoll | Phragmites | <5' | Yes | | | |
| | multiflora rose | <5' | Yes | | | |

Comments:

This unit is a vineland adjacent to the Recreation Center soccer field. What is left of the canopy includes silver maple, black cherry, red maple, sweetgum, callery pear, tree of heaven and mimosa. The unit is considerably disturbed with no regeneration. In addition to the major vines present (oriental bittersweet, Japanese honeysuckle and poison ivy) multiflora rose and mugwort are dominant in the understory. Other species present include porcelainberry, trailing dewberry, goldenrod, black cherry, deertongue grass, white avens, cool season grass, black raspberry, garlic mustard, spicebush and wild onion.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 644 **Classification** IB2a2 **Management Concerns**
Acreeage: 1.06 Is species composition changing? No Deer Impact
Date: 10/26/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | silver maple | <5' - >30' | No | | | Trash |
| Deciduous | sweetgum | <5' - >30' | No | | | |
| Chamaephytes | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Slope | poison ivy | <5' & 5-30' | No | | | |

Comments:

This is a closed forest west of the soccer field, next to the Farm Colony road. Silver maple and sweetgum dominate the canopy but white oak, black oak, pin oak, black cherry, sassafras, Norway maple, mulberry and tulip poplar are also present. Sassafras, silver maple, sweetgum, Norway maple, black cherry and oak species are regenerating. The understory is a very dense layer of multiflora rose with a lot of Japanese honeysuckle and poison ivy also present. Other species include garlic mustard, arrowwood, spicebush, wineberry, Japanese knotweed, American pokeweed, oriental bittersweet, trailing dewberry, mugwort, porcelainberry, wild onion, white avens, Japanese stiltgrass, Virginia creeper and catbrier.

Unit: 645 **Classification** IB2a2 **Management Concerns**
Acreeage: 1.10 Is species composition changing? No Invasive Sp.
Date: 10/26/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | silver maple | <5' - >30' | No | | | Trash |
| Deciduous | multiflora rose | <5' & 5-30' | Yes | | | |
| Chamaephytes | poison ivy | <5' - >30' | No | | | |
| Moist | Japanese honeysuckle | <5' | Yes | | | |
| Slope | white avens | <5' | No | | | |

Comments:

This is a closed forest at the north end of the soccer field, south of the Farm Colony road. Silver maple dominates the canopy, but there are a few sweetgum, black cherry and Norway maple trees as well. The understory is a fairly dense layer of multiflora rose with some spicebush and arrowwood mixed in. The ground layer has a lot of poison ivy, Japanese honeysuckle and white avens. The poison ivy also climbs up lots of trees. Regeneration of silver maple, Norway maple, oak species, ash species and tree of heaven is occurring. Other species present include trailing dewberry, oriental bittersweet, Japanese knotweed, wild onion, porcelainberry, garlic mustard, white mulberry, Japanese barberry, mock orange, English ivy, hackberry, sweet cherry and Virginia creeper.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 646 **Classification** IIB2a6 **Management Concerns**
Acreage: 0.24 Is species composition changing? No Invasive Sp.
Date: 10/26/2012 Is community structure changing? Yes Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | sweetgum | <5' & 5-30' | No | | | Trash |
| Deciduous | silver maple | >30' & 5-30' | No | | | |
| Lianas | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Moist | Japanese honeysuckle | <5' & 5-30' | Yes | | | |
| Slope | poison ivy | <5' & 5-30' | No | | | |
| | multiflora rose | <5' & 5-30' | Yes | | | |

Comments:

This is a small woodland unit on the north east end of the soccer field. Mostly young sweetgum and young black cherry with some older silver maples dominate the canopy. Vines have taken over the understory, particularly on the edge near the field. Other tree species include Norway maple, black locust, green ash and black oak. Sassafras, sweetgum and black locust are regenerating. Other species include white avens, Pennsylvania blackberry, spicebush, arrowwood, garlic mustard, porcelainberry, American pokeweed, sweet cherry, wild onion and oriental bittersweet.

Unit: 647 **Classification** IIIB1a **Management Concerns**
Acreage: 0.06 Is species composition changing? No
Date: 10/26/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|-------------------|---------------|---------------|-------------------|-------------|---------------------|
| Scrub | smooth sumac | <5' & 5-30' | No | | | Trash |
| Deciduous | indiangrass | <5' | No | | | |
| Geophytes | Queen Anne's lace | <5' | No | | | |
| Moist | chicory | <5' | Yes | | | |
| Knoll | | <5' | | | | |

Comments:

This is a small scrubland on the southeast side of the soccer field, just up the hill from the small pond. There is a lot of smooth sumac, indiangrass, Queens Anne's lace, chicory and Japanese honeysuckle. Other species include black cherry, Indian hemp, curly dock, poison ivy, common plantain, small white aster, ragweed, butter and eggs, little bluestem and purple lovegrass.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 648 **Classification** IB2a1 **Management Concerns**
Acreage: 0.36 Is species composition changing? No Deer Impact
Date: 10/26/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | black oak | <5' - >30' | Yes | | | Trash |
| Deciduous | sassafras | <5' - >30' | No | | | Dumping |
| Phanerophytes | white oak | <5' - >30' | No | | | |
| Moist | Japanese honeysuckle | <5' | Yes | | | |
| Undulating | goldenrod | <5' | No | | | |

Comments:

This is a closed forest unit east of the soccer field. The dominant canopy species include black oak and sassafras, but Norway maple and white oak are also present. The understory is mostly tree regeneration, smooth sumac, Japanese honeysuckle and goldenrod. The regeneration includes sassafras, black oak, white oak, black cherry, sweetgum, red maple and green ash. Other species present include indiagrass, multiflora rose, Pennsylvania blackberry, catbrier, oriental bittersweet, deertongue grass, poison ivy, trailing dewberry, winged sumac, porcelainberry, garlic mustard, wineberry, rush species, Virginia creeper, mugwort and hickory species.

Unit: 649 **Classification** IB2a6 **Management Concerns**
Acreage: 0.14 Is species composition changing? No Deer Impact
Date: 10/26/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | black oak | <5' - >30' | No | | | Trash |
| Deciduous | black cherry | <5' - >30' | No | | | |
| Lianas | sassafras | <5' - >30' | No | | | |
| Moist | Japanese honeysuckle | <5' | Yes | | | |
| Slope | mugwort | <5' | Yes | | | |
| | garlic mustard | <5' | Yes | | | |

Comments:

This is a small closed forest next to the Farm Colony road on the east side of the soccer field. Black oak, black cherry and sassafras are the dominant canopy species, but white oak and black locust are also present. Black cherry, white oak, black oak and sassafras are regenerating. The understory is a carpet of Japanese honeysuckle with a lot of garlic mustard and mugwort mixed in. There are a few shrubs, primarily multiflora rose. Other species present include trailing dewberry, catbrier, poison ivy, oriental bittersweet, white avens, deer tongue grass, American pokeweed, wild onion, goldenrod and wineberry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 650 **Classification** IB2a2 **Management Concerns**
Acreage: 0.21 Is species composition changing? No Deer Impact
Date: 10/26/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | black locust | <5' - >30' | Yes | | | Trash |
| Deciduous | black cherry | <5' - >30' | No | | | |
| Chamaephytes | multiflora rose | <5' & 5-30' | Yes | | | |
| Moist | Japanese honeysuckle | <5' | No | | | |
| Slope | | | | | | |

Comments:

This is a closed forest just east of the soccer field. It is dominated by black locust and black cherry. There is also some tree of heaven and mulberry in the canopy. Black cherry, black oak and black locust are regenerating. The understory is a dense layer of multiflora rose and Japanese honeysuckle. Other species present include poison ivy, porcelainberry, catbrier, garlic mustard, oriental bittersweet, sweet cherry, mugwort and wineberry.

Unit: 651 **Classification** IB2a2 **Management Concerns**
Acreage: 0.27 Is species composition changing? Yes Deer Impact
Date: 10/26/2012 Is community structure changing? Yes Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sassafras | <5' - >30' | No | | | Trash |
| Deciduous | black cherry | <5' - >30' | No | | | Dumping |
| Chamaephytes | silver maple | <5' - >30' | No | | | |
| Moist | multiflora rose | <5' & 5-30' | Yes | | | |
| Undulating | catbrier | <5' & 5-30' | No | | | |
| | Japanese honeysuckle | <5' & 5-30' | Yes | | | |

Comments:

This is a small closed forest unit north east of the soccer field. Sassafras, black cherry and silver maple are dominant in the canopy, but black oak, green ash, black locust, pin oak, and sweet cherry are also present. Black cherry, sassafras, white oak, Norway maple, American beech, black oak and hickory species are regenerating. The understory is a dense layer of multiflora rose mixed with catbrier. There is lots of Japanese honeysuckle in the herbaceous layer. There are a few areas where porcelainberry and Japanese honeysuckle are ascending the trees, and this unit could be transitioning into a vineland. Species also present include arrowwood, oriental bittersweet, poison ivy, garlic mustard, Virginia creeper, white avens, hackberry, wild onion and spicebush.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 652 **Classification** IVA1b3 **Management Concerns**
Acreeage: 0.03 Is species composition changing? No Invasive Sp.
Date: 10/26/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous | indian grass | <5' | No | | | |
| Deciduous | mugwort | <5' | Yes | | | |
| Geophytes | little bluestem | <5' | No | | | |
| Moist | Japanese honeysuckle | <5' | Yes | | | |
| Slope | purple love-grass | <5' | No | | | |

Comments:

This is a small herbaceous community on the east side of the soccer field. There are a couple green ash on the edges, but the unit is mostly herbaceous species. Primarily indiagrass, mugwort, little bluestem, and lovegrass, with some Japanese honeysuckle mixed in. Other species include bayberry, Indian hemp, small white aster, deertongue grass, multiflora rose, Rubus species, winged sumac, poison ivy and yarrow. There is a little bit of green ash, sassafras, black cherry, black locust, red maple and oak species regenerating.

Unit: 653 **Classification** IIB2a2 **Management Concerns**
Acreeage: 1.13 Is species composition changing? No Deer Impact
Date: 11/14/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | black oak | <5' - >30' | No | Road | | Trash |
| Deciduous | pin oak | <5' - >30' | No | Fence | | Dumping |
| Chamaephytes | sassafras | <5' - >30' | No | | | |
| Moist | catbrier | <5' & 5-30' | No | | | |
| Level | arrowwood | <5' & 5-30' | No | | | |

Comments:

This is a woodland north of the Recreation Center entrance road and south of the baseball fields. There is a road running through the northern portion of the unit, a fence on the southern edge and a second road on the western edge. Black oak, pin oak and sassafras are dominant in the canopy but mockernut hickory, Norway maple, red maple, black cherry, white oak, black birch, and American beech are also present. There is a lot of regeneration, specifically black cherry, sassafras, red maple, black oak, mockernut hickory, white oak, black birch and eastern white pine. The rest of the understory species consists of mostly catbrier and arrowwood. Other species include Japanese honeysuckle, stripped wintergreen, roundleaf pyrola, white snakeroot, goldenrod, poison ivy, little bluestem, cool season grass, oriental bittersweet, spicebush, wineberry, multiflora rose, lowbush blueberry, mugwort, Japanese stiltgrass, Pennsylvania blackberry and trailing dewberry.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 654 **Classification** IIB2a3 **Management Concerns**
Acreage: 0.06 Is species composition changing? No Deer Impact
Date: 11/14/2012 Is community structure changing? No Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|-------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | red maple | <5' - >30' | No | | | Trash |
| Deciduous | white oak | <5' - >30' | No | | | Dumping |
| Hemicryptophytes | sassafras | <5' - >30' | No | | | |
| Moist | Japanese knotweed | <5' & 5-30' | Yes | | | |
| Undulating | catbrier | <5' & 5-30' | No | | | |
| | multiflora rose | <5' & 5-30' | Yes | | | |

Comments:

This is a small woodland between the baseball fields and the eastern farm colony road. There is a large woodland coverend in vines next to this unit. Red maple is the dominant canopy species, but sassafras, black cherry, tulip poplar and white oak are also present. There is some red maple, sassafras and Norway maple regeneration. The understory is mostly Japanese knotweed, multiflora rose and catbrier. Other species present include oriental bittersweet, Japanese honeysuckle, poison ivy, Virginia creeper and arrowwood.

Unit: 655 **Classification** IIB2a6 **Management Concerns**
Acreage: 0.44 Is species composition changing? Yes Deer Impact
Date: 11/14/2012 Is community structure changing? Yes Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | silver maple | <5' & 5-30' | No | Road | | Trash |
| Deciduous | sweetgum | <5' & 5-30' | No | | | Dumping |
| Lianas | porcelainberry | <5' & 5-30' | Yes | | | |
| Moist | oriental bittersweet | <5' & 5-30' | Yes | | | |
| Undulating | multiflora rose | <5' & 5-30' | Yes | | | |
| | Japanese honeysuckle | <5' & 5-30' | Yes | | | |

Comments:

This is a woodland transitioning into a vineland on the east border of the park between the baseball field and the eastern farm colony road. There is part of an old roadbed or parking lot in the middle of the unit. The canopy species are mostly silver maple and sweetgum, but black cherry, sweet cherry, red maple and bebb willow are also present. There is a little bit of black cherry, sweetgum, pin oak, silver maple and Norway maple regenerating. The understory is primarily a mix of vines climbing on multiflora rose and mugwort. Other species include arrowwood, poison ivy, Virginia creeper, porcelainberry, catbrier, cool season grass, garlic mustard, goldenrod, trailing dewberry, winged sumac, American pokeweed, Phragmites and wild onion.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 656 **Classification** IVA3a5 **Management Concerns**
Acreage: 0.04 Is species composition changing? No Invasive Sp.
Date: 11/14/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|-----------------------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous | rose mallow | <5' | No | | | Trash |
| Deciduous | mugwort | <5' | Yes | | | |
| Hemicyptophytes | rush spp. | <5' | No | | | |
| Surface water Depression | | | | | | |

Comments:

This is a small herbaceous unit that surrounds a pond on the south east side of the lawn around the soccer field. Rush species are in the water and around the edge and rose-mallow is mixed with mugwort to make up the other major species along the edge of the pond. Other species include multiflora rose, goldenrod, Phragmites, bayberry, small white aster, winged sumac and moss.

Unit: 657 **Classification** VD **Management Concerns**
Acreage: 1.37 Is species composition changing? No
Date: 11/14/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|-------------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Scarely vegetated | grass spp. | <5' | | | Sports | |
| Deciduous | | | | | | |
| Geophytes | | | | | | |
| Urban fill | | | | | | |
| Level | | | | | | |

Comments:

This unit is scarcely vegetated because it is the Recreation Center soccer field. It is turf. There is a small amount of grass growing along the edges.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 658 **Classification** IVA2i
Acreage: 1.40 Is species composition changing? No
Date: 11/14/2012 Is community structure changing? No

Management Concerns

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Herbaceous | Kentucky bluegrass | <5' | No | Paved path | Foot traffic | Trash |
| Deciduous | mugwort | <5' | Yes | Lamppost | Sports | |
| Geophytes | English plantain | <5' | Yes | | | |
| Moist | | | | | | |
| Level | | | | | | |

Comments:

This is the lawn surrounding the soccer field. Species present include Kentucky bluegrass, mugwort, English plantain, path rush, common plantain, small ragweed, multiflora rose, lovegrass, small white aster, goldenrod, yarrow, clover, dandelion, cinquefoil and rush species. There are a couple saplings on the edges, a green ash, a Norway maple and a London planetree.

Unit: 659 **Classification** IIB2a4
Acreage: 0.95 Is species composition changing? No
Date: 11/14/2012 Is community structure changing? No

Management Concerns

Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | pin oak | >30' & 5-30' | No | Road | Foot traffic | Trash |
| Deciduous | sweetgum | >30' & 5-30' | No | Restoration | Vehicle access | |
| Geophytes | sassafras | >30' & 5-30' | No | Phone pole | Picnic | |
| Moist | kentucky bluegrass | <5' | No | | | |
| Undulating | English plantain | <5' | Yes | | | |
| | mugwort | <5' | Yes | | | |

Comments:

This unit is all of the lawn immediately around the Recreation Center building and courts. There are several planted trees, including pin oak, sweetgum, slippery elm, sassafras, sugar maple, red maple, sweet cherry, willow, black cherry and silver maple. These are part of a PlaNYC restoration project in 2007. The lawn is primarily made up of Kentucky bluegrass with mugwort and English plantain mixed in. Other species present include clover, American holly, dandelion and small white aster.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 660 **Classification** IVA2g **Management Concerns**
Acreage: 2.62 Is species composition changing? No
Date: 11/14/2012 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Herbaceous Deciduous Geophytes Urban fill Level | grass spp. | <5' | | | | |

Comments:

This unit is the road leading into the Recreation Center, its two parking lots, the Recreation Center building, the tennis courts and the basketball courts. Some grass is present.

Unit: 661 **Classification** IB2a3 **Management Concerns**
Acreage: 0.01 Is species composition changing? No
Date: 06/14/2011 Is community structure changing? No
 Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|--|--|--|-----------------------------------|-------------------------------|-------------|---------------------|
| Closed Forest Deciduous Hemicryptophytes Moist Level | pin oak mugwort grass spp. poison ivy white snakeroot lily spp. | >30' <5' <5' <5' - >30' <5' <5' | No Yes No No No No | Exotic planting Foundation | | Trash |

Comments:

This is a closed forest located near the entrance of the Greenbelt Recreation Center. It is dominated by pin oak and mugwort. There is a small garden at the entrance. Other species include deertongue grass, catbrier, asters, Virginia creeper, black cherry, lamb's quarters and daisy species.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 662 **Classification** IB2a3 **Management Concerns**
Acreage: 0.09 Is species composition changing? No Invasive Sp.
Date: 06/14/2011 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | slippery elm | <5' - >30' | No | Landfill | | Trash |
| Deciduous | black locust | 5'-30' | Yes | Foundation | | Dumping |
| Hemicryptophytes | mugwort | <5' | Yes | | | |
| Moist | garlic mustard | <5' | Yes | | | |
| Undulating | | | | | | |

Comments:

This is a closed forest unit near the entrance to the Recreation Center and adjacent to Brielle Avenue. It is dominated by pin oak and slippery elm. There is a large cement block in the unit. Other species present include black walnut, poison ivy, white oak, pin oak, green ash, American basswood and black cherry.

Unit: 663 **Classification** IVA3a5 **Management Concerns**
Acreage: 0.04 Is species composition changing? No
Date: 06/14/2011 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|--------------------|---------------|---------------|-------------------|--------------|---------------------|
| Herbaceous | grass spp. | <5' | No | | Foot traffic | |
| Deciduous | common plantain | <5' | No | | | |
| Hemicryptophytes | white snakeroot | <5' | No | | | |
| Moist | lily of the valley | <5' | No | | | |
| Slope | | | | | | |

Comments:

This is an herbaceous unit adjacent to the Recreation Center entrance road. Several trees were planted during the 2007 PlaNYC million trees planting. Old tree stumps are still present. Other species include white oak, sweetgum, swamp white oak and red maple.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 664 **Classification** IIB2a3 **Management Concerns**
Acreage: 0.09 Is species composition changing? No
Date: 06/14/2011 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|--------------------|---------------|---------------|-------------------|--------------|---------------------|
| Woodland | red maple | 5'-30' | No | | Foot traffic | |
| Deciduous | grass spp. | <5' | No | | | |
| Hemicryptophytes | common plantain | <5' | No | | | |
| Moist | lily of the valley | <5' | No | | | |
| Level | white snakeroot | <5' | No | | | |

Comments:

This is a woodland unit adjacent to the Recreation Center entrance road. There is a bench in the unit. Several PlaNYC trees are present in the unit. Other species include black walnut, slippery elm, witch hazel, black cherry and daisy fleabane.

Unit: 665 **Classification** IIB2a3 **Management Concerns**
Acreage: 0.18 Is species composition changing? No
Date: 06/14/2011 Is community structure changing? No
 Invasive Sp.

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|----------------------|---------------|---------------|-------------------|-------------|---------------------|
| Woodland | tree of heaven | 5'-30' | Yes | Landfill | | Dumping |
| Deciduous | mugwort | <5' | Yes | | | |
| Hemicryptophytes | Japanese knotweed | <5' & 5-30' | Yes | | | |
| Moist | garlic mustard | <5' | Yes | | | |
| Undulating | Japanese honeysuckle | <5' | Yes | | | |
| | possumhaw | 5'-30' | No | | | |

Comments:

This is a woodland dominated by tree of heaven. The understory is predominantly mugwort and knotweed. There are several tree of heaven trees with a gap in canopy cover. Other species present include poison ivy, blackberry, wineberry, pin oak, Virginia creeper, slippery elm, porcelainberry and oriental bittersweet.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

Unit: 666 **Classification** IIB1a **Management Concerns**
Acreage: 0.16 Is species composition changing? No Invasive Sp.
Date: 06/14/2011 Is community structure changing? No

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Scrub | sycamore maple | 5'-30' | Yes | | Landfill | |
| Deciduous | mugwort | <5' | Yes | | | |
| Hemicryptophytes | common plantain | <5' | No | | | |
| Moist | porcelainberry | <5' | Yes | | | |
| Slope | Virginia creeper | <5' | No | | | |

Comments:

This is a scrub close to the Recreation Center entrance gate. It was an old mugwort field, and is now dominated by sycamore maple. Evidence of PlaNYC planting in 2007 is present and saplings are established. Other species present include red maple, blackgum, white snakeroot, slipper elm and sweetgum.

Unit: 667 **Classification** IIB2a3 **Management Concerns**
Acreage: 0.04 Is species composition changing? No Invasive Sp.
Date: 08/29/2012 Is community structure changing? No Deer Impact

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|------------------|------------------|---------------|---------------|-------------------|-------------|---------------------|
| Closed Forest | sweetgum | <5' - >30' | No | | | Trash |
| Deciduous | red maple | <5' & 5-30' | No | | | |
| Hemicryptophytes | hay-scented fern | <5' | No | | | |
| Moist | cinnamon fern | <5' | No | | | |
| Slope | Canada mayflower | <5' | No | | | |

Comments:

This is a small unit just north of Rockland Avenue. The canopy is primarily sweetgum with one large black oak, but a lot of red maple is regenerating in the 5-30' range. Ferns dominate the understory, a mix of hayscented and cinnamon. There is also some spicebush and arrowwood present. The deer are using this area as a means to cross Rockland Avenue into and out of La Tourette Park. There are clear game trails cutting through the unit. Sweet pepperbush, arrowwood, New York fern, Azalea species, poison ivy, Canada mayflower, Virginia creeper, Solomon's seal species, wild yam and Japanese honeysuckle are also present. Sweetgum, hickory species, sassafras, black oak and pin oak are also regenerating.

Blood Root Valley Entitation Unit Descriptions, Surveyed 2011-2012

| | | | | | |
|-----------------|------------|----------------------------------|--------|--|-----------------------------------|
| Unit: | 668 | Classification | IIB2a3 | | <u>Management Concerns</u> |
| Acreage: | 0.16 | Is species composition changing? | No | | Invasive Sp. |
| Date: | 06/14/2011 | Is community structure changing? | No | | |

| <u>Site:</u> | <u>Species</u> | <u>Height</u> | <u>Exotic</u> | <u>Historical</u> | <u>Uses</u> | <u>Disturbances</u> |
|---------------------|-----------------------|----------------------|----------------------|--------------------------|--------------------|----------------------------|
| Woodland | Norway maple | <5' - >30' | Yes | | | Trash |
| Deciduous | mugwort | <5' | Yes | | | |
| Hemicryptophytes | wineberry | <5' | Yes | | | |
| Moist | | | | | | |
| Slope | | | | | | |

Comments:

This is a small woodland adjacent to the upper parking lot of the Recreation Center. There is a lot of Norway Maple in the canopy and the understory is mostly mugwort and wineberry. Because this is an edge unit next to a parking lot it is very disturbed with a lot of invasive species. Other species present include red maple, tree of heaven, poison ivy, Virginia creeper, Japanese honeysuckle, common plantain, oriental bittersweet, lily of the valley, garlic mustard, goldenrod, catbrier, spicebush, porcelainberry, white avens and trailing dewberry.

Section IV. APPENDIX 1: Glossary

Many of these definitions are adapted from Marge Garguillo's unpublished *Plants of New York City Natural Areas: An ecological manual* (2005).

Chamaephyte: Mature branch or shoot system remaining perennially less than or equal to 100 in above ground. Buds are produced on aerial branches close to the soil. (e.g. shrubs)

Closed forest: An area formed by trees at least 15 feet tall with interlocking crowns and at least 80% canopy closure.

Competition: The ability of one plant to overwhelm another plant by shading it out or otherwise overwhelming it.

Deciduous: Majority of trees shed their foliage in the autumn months.

Depression: A hollow, or low point, as compared to the surrounding topography. May or may not contain water.

Dominant: The most abundant plants in a particular plant community. A codominant plant is about equally as abundant as the dominant species.

Exotic: A species that does not naturally inhabit a specific area. An exotic plant may or may not be invasive where it is introduced.

Exotic planting: A gardened area where non-native species (e.g. privet, periwinkle) are tended.

Full-crown tree: Initially open-grown and free of competition: currently very large with a dominating crown.

Geophyte: Plants with buds or shoots surviving below the ground (rhizomes, bulbs, stem tubers, root tubers.)

Graminoid: Grasses and grass-like plants.

Hedgerow: Evidence of trees or shrubs planted in line i.e., maple or privet along road or path.

Hemicryptophyte: Shoots die back to ground level.

Herb: Plants without woody tissues that die back to the ground in the winter. This classification is usually applied to broad-leaved plants rather than grasses, but includes grasses for the purpose of entitation.

Herbaceous community: An area where grasses, grass like plants, and herbaceous plants are predominant. Woody plants may be sparingly present, but cover less than 30% of area.

Intertidal community: Substrate is exposed and flooded by tides, includes the associated splash zone.

Invasive plant: A plant species that grows and reproduces without constraint, crowding or shading out other plants. The term is usually applied to plants that are not native to the given region. Invasiveness in a plant that is native to the region is rare and probably caused by unusual circumstances.

Knoll: A small isolated hillock.

Landfill: Topography altered by previous filling or dumping: i.e., while building a road or altering a wetland area. Look for rubble on the soil surface or sudden changes in grade.

Lianas: Vascular plants needing support, rooting in the ground permanently (vines).

Native plant: Plants that were growing in this region before Europeans came to North America. Native plants are adapted to the climate and soils of their region. They have relationships with birds, mammals, insects, and fungi and are integrated into the ecology of the region. New York City's native plants come from seed that spread northward after the last glaciers melted thousands of years ago.

Ornamental: Plants used as horticultural specimens in gardens or developed parks, not intended to reproduce or be part of a natural plant community. Very often they are non-native plants.

Phanerophyte: Plants that grow taller than 100 in. or whose shoots do not die back periodically to that height (e.g., trees).

Scrub: A shrubland or thicket, mainly composed of woody plants 1.5 to 15 feet tall.

Slope: Ground that forms a natural or artificial incline.

Soil compaction: Increasing soil density and decreasing porosity due to application of mechanical forces to the soil: i.e. due to vehicle, horse, or foot traffic.

Species: A group of organisms that can interbreed to produce fertile young.

Understory: Habitat below the tree canopy of a forest. The understory is a plant community of tree saplings, shrubs, herbs, graminoids, and mosses that can live in shade or part shade.

Undulating: The area has a wavy surface. It is neither a slope, a level area, or a depression, but rather a combination of all three.

Vineland: An area formed by at least 30% vines. Vines may be supported by vegetation, artificial means or ground surface. Often occurs on the forest or shrub border.

Woodland: An area formed by trees at least 15 feet tall, with most of their crowns not touching each other, but at least 30% canopy closure.

Section V. APPENDIX 2: Species List

The following list of species are found in the Northeast United States.

| Common Name | Scientific Name | Common Name | Scientific Name |
|---------------------------|--------------------------------|--------------------------|-------------------------------|
| Adam's needle | <i>Yucca filamentosa</i> | American mountain ash | <i>Sorbus americana</i> |
| adder's-mouth orchid | <i>Malaxis spp.</i> | American plum | <i>Prunus americana</i> |
| agrimony | <i>Agrimonia gryposepala</i> | American pokeweed | <i>Phytolacca americana</i> |
| alder | <i>Alnus spp.</i> | American red raspberry | <i>Rubus idaeus</i> |
| alfalfa | <i>Medicago spp.</i> | American senna | <i>Senna hebecarpa</i> |
| algae spp. | | American speedwell | <i>Veronica americana</i> |
| alkaligrass | <i>Puccinellia spp.</i> | American strawberry bush | <i>Euonymus americanus</i> |
| Allegheny blackberry | <i>Rubus allegheniensis</i> | American sycamore | <i>Platanus occidentalis</i> |
| Allegheny monkeyflower | <i>Mimulus ringens</i> | American water plantain | <i>Alisma subcordatum</i> |
| alternatleaf dogwood | <i>Cornus alternifolia</i> | American white waterlily | <i>Nymphaea odorata</i> |
| alumroot | <i>Heuchera spp.</i> | American wintergreen | <i>Pyrola americana</i> |
| American alumroot | <i>Heuchera americana</i> | American witchhazel | <i>Hamamelis virginiana</i> |
| American basswood | <i>Tilia americana</i> | American yew | <i>Taxus canadensis</i> |
| American beachgrass | <i>Ammophila breviligulata</i> | Amur corktree | <i>Phellodendron amurense</i> |
| American beech | <i>Fagus grandifolia</i> | Amur honeysuckle | <i>Lonicera maackii</i> |
| American bittersweet | <i>Celastrus scandens</i> | Amur maackia | <i>Maackia amurensis</i> |
| American bladdernut | <i>Staphylea trifolia</i> | Amur maple | <i>Acer ginnala</i> |
| American bur-reed | <i>Sparganium americanum</i> | anemone | <i>Anemone spp.</i> |
| American cancer-root | <i>Conopholis americana</i> | anisescented goldenrod | <i>Solidago odora</i> |
| American chestnut | <i>Castanea dentata</i> | annual bluegrass | <i>Poa annua</i> |
| American elm | <i>Ulmus americana</i> | annual canarygrass | <i>Phalaris canariensis</i> |
| American false pennyroyal | <i>Hedeoma pulegioides</i> | annual wildrice | <i>Zizania aquatica</i> |
| American featherfoil | <i>Hottonia inflata</i> | apple | <i>Malus spp.</i> |
| American hazelnut | <i>Corylus americana</i> | arborvitae | <i>Thuja occidentalis</i> |
| American holly | <i>Ilex opaca</i> | arborvitae | <i>Thuja spp.</i> |
| American hornbeam | <i>Carpinus caroliniana</i> | arctic rush | <i>Juncus arcticus</i> |
| American ipecac | <i>Euphorbia ipecacuanhae</i> | arrow arum | <i>Peltandra spp.</i> |
| American mannagrass | <i>Glyceria grandis</i> | arrowfeather | <i>Aristida purpurascens</i> |
| | | threeawn | <i>Sagittaria spp.</i> |
| | | arrowhead | <i>Crotalaria sagittalis</i> |
| | | arrowhead rattlebox | <i>Polygonum</i> |
| | | arrowleaf | |

| Common Name | Scientific Name | Common Name | Scientific Name |
|------------------------|--|----------------------------|------------------------------------|
| tearthumb | <i>sagittatum</i> | beach sedge | <i>Carex silicea</i> |
| arrowleaf violet | <i>Viola sagittata</i> | beaked spikerush | <i>Eleocharis rostellata</i> |
| arrowwood | <i>Viburnum dentatum</i> | | |
| ash | <i>Fraxinus spp.</i> | beaksedge | <i>Rhynchospora spp.</i> |
| Asian flatsedge | <i>Cyperus amuricus</i> | bear oak | <i>Quercus ilicifolia</i> |
| Asiatic bittersweet | <i>Celastrus orbiculatus</i> | Bebb willow | <i>Salix bebbiana</i> |
| | <i>Commelina communis</i> | bedstraw | <i>Galium spp.</i> |
| Asiatic dayflower | <i>Asparagus spp.</i> | beech | <i>Fagus spp.</i> |
| | <i>Eurybia spp.</i> | beechdrops | <i>Epifagus virginiana</i> |
| asparagus | <i>Ionactis spp.</i> | beechfern | <i>Phegopteris spp.</i> |
| aster | <i>Oclemena spp.</i> | beggarticks | <i>Bidens spp.</i> |
| aster | <i>Symphotrichum spp.</i> | bellwort | <i>Uvularia spp.</i> |
| aster | <i>Glyceria obtusa</i> | bent sedge | <i>Carex styloflexa</i> |
| Atlantic mannagrass | | bentgrass | <i>Agrostis spp.</i> |
| Atlantic white cedar | <i>Chamaecyparis thyoides</i> | Bermudagrass | <i>Cynodon dactylon</i> |
| | <i>Pinus nigra</i> | big bluestem | <i>Andropogon gerardii</i> |
| Austrian pine | <i>Corallorhiza odontorhiza</i> | big cordgrass | <i>Spartina cynosuroides</i> |
| autumn coralroot | <i>Elaeagnus umbellata</i> | | |
| | <i>Geum spp.</i> | big devils beggartick | <i>Bidens vulgata</i> |
| autumn olive | <i>Bromus racemosus</i> | bigbract verbena | <i>Verbena bracteata</i> |
| | <i>Taxodium distichum</i> | bigtooth aspen | <i>Populus grandidentata</i> |
| avens | <i>Abies balsamea</i> | | |
| bald brome | <i>Populus balsamifera</i> | billion-dollar grass | <i>Echinochloa frumentacea</i> |
| baldcypress | <i>Actaea spp.</i> | | |
| | <i>Setaria verticilliformis</i> | bindweed | <i>Convolvulus spp.</i> |
| balsam fir | <i>Hordeum spp.</i> | birch | <i>Betula spp.</i> |
| balsam poplar | <i>Echinochloa crus-galli</i> | birdeye speedwell | <i>Veronica persica</i> |
| | <i>Pycnanthemum clinopodioides</i> | birdfoot violet | <i>Viola pedata</i> |
| baneberry | <i>Comandra umbellata</i> | bitter panicgrass | <i>Panicum amarum</i> |
| barbed bristlegrass | <i>Myosotis laxa</i> | bittercress | <i>Cardamine spp.</i> |
| | <i>Morella spp.</i> | bitternut hickory | <i>Carya cordiformis</i> |
| barley | <i>Xanthium strumarium</i> | black alder | <i>Alnus glutinosa</i> |
| barnyardgrass | <i>Agalinis fasciculata</i> | black baneberry | <i>Actaea racemosa</i> |
| | <i>Lathyrus japonicus</i> | black bindweed | <i>Polygonum convolvulus</i> |
| basil mountainmint | <i>Prunus maritima</i> | | |
| | | black birch/sweet birch | <i>Betula lenta</i> |
| bastard toadflax | | black cherry | <i>Prunus serotina</i> |
| | | black huckleberry | <i>Gaylussacia baccata</i> |
| bay forget-me-not | | | |
| bayberry | | black knapweed | <i>Centaurea nigra</i> |
| beach clotbur | | black locust | <i>Robinia pseudoacacia</i> |
| | | | |
| beach false foxglove | | black maple | <i>Acer nigrum</i> |
| beach pea | | black oak | <i>Quercus velutina</i> |
| beach plum | | black walnut | <i>Juglans nigra</i> |
| | | black willow | <i>Salix nigra</i> |

| Common Name | Scientific Name | Common Name | Scientific Name |
|----------------------|------------------------------------|---------------------|----------------------------------|
| blackberry | <i>Rubus spp.</i> | spikerush | |
| blackeyed Susan | <i>Rudbeckia hirta</i> | bristlegrass | <i>Setaria spp.</i> |
| blackgum | <i>Nyssa sylvatica</i> | bristly buttercup | <i>Ranunculus hispidus</i> |
| blackhaw | <i>Viburnum prunifolium</i> | bristly dewberry | <i>Rubus hispidus</i> |
| blackjack oak | <i>Quercus marilandica</i> | brittle bladderfern | <i>Cystopteris fragilis</i> |
| blackseed plantain | <i>Plantago rugelii</i> | broad beechfern | <i>Phegopteris hexagonoptera</i> |
| blackseed | <i>Piptochaetium avenaceum</i> | broadfruit bur-reed | <i>Sparganium eurycarpum</i> |
| speargrass | <i>Cystopteris spp.</i> | broadleaf cattail | <i>Typha latifolia</i> |
| bladderfern | <i>Liatris spp.</i> | broadleaf rosette | <i>Dichanthelium latifolium</i> |
| blazing star | <i>Sanguinaria canadensis</i> | grass | <i>Bromus spp.</i> |
| bloodroot | <i>Cedrus atlantica</i> | brome | <i>Samolus spp.</i> |
| blue atlas cedar | <i>Gaylussacia frondosa</i> | brookweed | <i>Panicum miliaceum</i> |
| blue huckleberry | <i>Carex glaucoidea</i> | broomcorn millet | <i>Orobanche spp.</i> |
| blue sedge | <i>Scutellaria lateriflora</i> | broomrape | <i>Andropogon virginicus</i> |
| blue skullcap | <i>Cuphea viscosissima</i> | broomsedge | <i>Centaurea jacea</i> |
| blue waxweed | <i>Baptisia australis</i> | bluestem | <i>Liparis liliifolia</i> |
| blue wild indigo | <i>Vaccinium spp.</i> | brown knapweed | |
| blueberry | <i>Trichostema spp.</i> | brown widelip | <i>Rhynchospora capitellata</i> |
| bluecurls | <i>Sisyrinchium spp.</i> | orchid | <i>Microstegium spp.</i> |
| blue-eyed grass | <i>Poa spp.</i> | brownish beaksedge | <i>Aesculus spp.</i> |
| bluegrass | <i>Tradescantia ohiensis</i> | | <i>Fagopyrum esculentum</i> |
| bluejacket | <i>Calamagrostis canadensis</i> | bull thistle | <i>Cirsium vulgare</i> |
| bluejoint | <i>Andropogon spp.</i> | bulrush | <i>Scirpus spp.</i> |
| bluestem | <i>Houstonia spp.</i> | bur cucumber | <i>Sicyos spp.</i> |
| bluet | <i>Carex tribuloides</i> | bur oak | <i>Quercus macrocarpa</i> |
| blunt broom sedge | <i>Eleocharis obtusa</i> | burdock | <i>Arctium spp.</i> |
| blunt spikerush | <i>Galium obtusum</i> | burnet | <i>Sanguisorba spp.</i> |
| bluntleaf bedstraw | <i>Woodsia obtusa</i> | burningbush | <i>Euonymus alatus</i> |
| bluntlobe cliff fern | <i>Thelypteris simulata</i> | bur-reed | <i>Sparganium spp.</i> |
| bog fern | <i>Juncus biflorus</i> | bush honeysuckle | <i>Diervilla spp.</i> |
| bog rush | <i>Rorippa palustris</i> | bushy bluestem | <i>Andropogon glomeratus</i> |
| bog yellowcress | <i>Parthenocissus tricuspidata</i> | bushy knotweed | <i>Polygonum ramosissimum</i> |
| Boston ivy | <i>Saponaria officinalis</i> | butter and eggs | <i>Linaria vulgaris</i> |
| bouncing bet | <i>Acer negundo</i> | buttercup | <i>Ranunculus spp.</i> |
| boxelder | <i>Pteridium spp.</i> | butterfly milkweed | <i>Asclepias tuberosa</i> |
| brackenfern | <i>Eleocharis olivacea</i> | butternut | <i>Juglans cinerea</i> |
| bright green | | button sedge | <i>Carex bullata</i> |
| | | buttonweed | <i>Diodia spp.</i> |

| Common Name | Scientific Name | Common Name | Scientific Name |
|-------------------------|------------------------------------|--------------------------|-----------------------------------|
| calico aster | <i>Symphyotrichum lateriflorum</i> | chestnut | <i>Castanea spp.</i> |
| callery pear | <i>Pyrus calleryana</i> | chestnut oak | <i>Quercus prinus</i> |
| camphorweed | <i>Pluchea spp.</i> | chicory | <i>Cichorium intybus</i> |
| campion | <i>Lychnis spp.</i> | Chinese chestnut | <i>Castanea mollissima</i> |
| Canada bluegrass | <i>Poa compressa</i> | Chinese wisteria | <i>Wisteria sinensis</i> |
| Canada goldenrod | <i>Solidago canadensis</i> | chokeberry | <i>Photinia spp.</i> |
| Canada lettuce | <i>Lactuca canadensis</i> | chokecherry | <i>Prunus virginiana</i> |
| Canada lily | <i>Lilium canadense</i> | Christmas fern | <i>Polystichum acrostichoides</i> |
| Canada mayflower | <i>Maianthemum canadense</i> | churchmouse | <i>Aristida dichotoma</i> |
| Canada thistle | <i>Cirsium arvense</i> | threeawn | |
| Canada toadflax | <i>Nuttallanthus canadensis</i> | cinnamon fern | <i>Osmunda cinnamomea</i> |
| Canadian blacksnakeroot | <i>Sanicula canadensis</i> | cinquefoil | <i>Potentilla spp.</i> |
| Canadian clearweed | <i>Pilea pumila</i> | clammy | <i>Gratiola neglecta</i> |
| Canadian lousewort | <i>Pedicularis canadensis</i> | hedgelyssop | |
| Canadian rush | <i>Juncus canadensis</i> | clearweed | <i>Pilea spp.</i> |
| Canadian serviceberry | <i>Amelanchier canadensis</i> | cliff fern | <i>Woodsia spp.</i> |
| Canadian woodnettle | <i>Laportea canadensis</i> | climbing false buckwheat | <i>Polygonum scandens</i> |
| canarygrass | <i>Phalaris spp.</i> | climbing hempvine | <i>Mikania scandens</i> |
| cankerweed | <i>Prenanthes serpentaria</i> | climbing nightshade | <i>Solanum dulcamara</i> |
| cantaloupe | <i>Cucumis melo</i> | Clinton's woodfern | <i>Dryopteris clintoniana</i> |
| cardinalflower | <i>Lobelia cardinalis</i> | clover | <i>Trifolium spp.</i> |
| Carolina geranium | <i>Geranium carolinianum</i> | clustered millegrain | <i>Oldenlandia uniflora</i> |
| Carolina mosquitofern | <i>Azolla caroliniana</i> | clustered | <i>Pycnanthemum muticum</i> |
| Carolina rose | <i>Rosa carolina</i> | mountainmint | <i>Sanicula odorata</i> |
| carpetweed | <i>Mollugo spp.</i> | clustered snakeroot | <i>Echinochloa walteri</i> |
| catalpa | <i>Catalpa spp.</i> | coast cockspear grass | <i>Polygonella articulata</i> |
| catberry | <i>Ilex mucronata</i> | coastal jointweed | <i>Sisyrinchium fuscatum</i> |
| catbrier | <i>Smilax spp.</i> | coastal plain | <i>Echinochloa spp.</i> |
| catchfly | <i>Silene spp.</i> | blue-eyed grass | <i>Epilobium hirsutum</i> |
| catnip | <i>Nepeta cataria</i> | cockspear grass | <i>Aletris spp.</i> |
| cat's ear | <i>Hypochaeris spp.</i> | codlins and cream | <i>Carex collinsii</i> |
| cattail | <i>Typha spp.</i> | colicroot | <i>Picea pungens</i> |
| cattail sedge | <i>Carex typhina</i> | Collins' sedge | |
| cedar | <i>Chamaecyparis spp.</i> | Colorado blue spruce | |
| celandine | <i>Chelidonium majus</i> | columbine | <i>Aquilegia spp.</i> |
| cereal rye | <i>Secale cereale</i> | common barberry | <i>Berberis vulgaris</i> |
| chainfern | <i>Woodwardia spp.</i> | common blue violet | <i>Viola sororia</i> |
| cheatgrass | <i>Bromus tectorum</i> | common blue wood aster | <i>Symphyotrichum cordifolium</i> |
| | | common boneset | <i>Eupatorium</i> |

| Common Name | Scientific Name | Common Name | Scientific Name |
|-------------------------|---|----------------------|---------------------------------|
| common buckthorn | <i>perfoliatum</i> <i>Rhamnus cathartica</i> | common velvetgrass | <i>Holcus lanatus</i> |
| common buttonbush | <i>Cephalanthus occidentalis</i> | common winterberry | <i>Ilex verticillata</i> |
| common chickweed | <i>Stellaria media</i> | common yarrow | <i>Achillea millefolium</i> |
| common cinquefoil | <i>Potentilla simplex</i> | compact dodder | <i>Cuscuta compacta</i> |
| common dandelion | <i>Taraxacum officinale</i> | composite dropseed | <i>Sporobolus compositus</i> |
| common dittany | <i>Cunila origanoides</i> | cone-cup spikerush | <i>Eleocharis tuberculosa</i> |
| common evening primrose | <i>Oenothera biennis</i> | coneflower | <i>Rudbeckia spp.</i> |
| common fleabane | <i>Erigeron philadelphicus</i> | cool season grass | |
| common goldstar | <i>Hypoxis hirsuta</i> | coon's tail | <i>Ceratophyllum demersum</i> |
| common grape hyacinth | <i>Muscari botryoides</i> | coralroot | <i>Corallorhiza spp.</i> |
| common hackberry | <i>Celtis occidentalis</i> | cordgrass | <i>Spartina spp.</i> |
| common hop | <i>Humulus lupulus</i> | corn chamomile | <i>Anthemis arvensis</i> |
| common hoptree | <i>Ptelea trifoliata</i> | corn gromwell | <i>Buglossoides arvensis</i> |
| common juniper | <i>Juniperus communis</i> | corn speedwell | <i>Veronica arvensis</i> |
| common ladyfern | <i>Athyrium filix-femina</i> | Cornelian cherry | <i>Cornus mas</i> |
| common mallow | <i>Malva neglecta</i> | cosmopolitan | <i>Schoenoplectus maritimus</i> |
| common milkweed | <i>Asclepias syriaca</i> | bulrush | <i>Eriophorum spp.</i> |
| common moonseed | <i>Menispermum canadense</i> | cottongrass | <i>Vicia cracca</i> |
| common mullein | <i>Verbascum thapsus</i> | cow vetch | <i>Oxypolis spp.</i> |
| common oat | <i>Avena sativa</i> | cowbane | <i>Heracleum</i> |
| common pear | <i>Pyrus communis</i> | cowparsnip | <i>Digitaria spp.</i> |
| common pepperweed | <i>Lepidium densiflorum</i> | crabgrass | <i>Salix fragilis</i> |
| common periwinkle | <i>Vinca minor</i> | crack willow | <i>Vaccinium macrocarpon</i> |
| common persimmon | <i>Diospyros virginiana</i> | cranberry | <i>Lagerstroemia indica</i> |
| common plantain | <i>Plantago major</i> | crapemyrtle | <i>Geum virginianum</i> |
| common pricklyash | <i>Zanthoxylum americanum</i> | cream avens | <i>Agrostis stolonifera</i> |
| common ragweed | <i>Ambrosia artemisiifolia</i> | creeping bentgrass | <i>Ranunculus repens</i> |
| common serviceberry | <i>Amelanchier arborea</i> | creeping buttercup | <i>Lespedeza repens</i> |
| common sheep sorrel | <i>Rumex acetosella</i> | creeping lespedeza | <i>Holcus mollis</i> |
| common sowthistle | <i>Sonchus oleraceus</i> | creeping velvetgrass | <i>Oxalis corniculata</i> |
| common spikerush | <i>Eleocharis palustris</i> | creeping woodsorrel | <i>Atriplex cristata</i> |
| common threesquare | <i>Schoenoplectus pungens</i> | crested saltbush | <i>Dryopteris cristata</i> |
| | | crested woodfern | <i>Tipularia discolor</i> |
| | | crippled crane fly | <i>Verbesina spp.</i> |
| | | crownbeard | <i>Paspalum spp.</i> |
| | | crowngrass | <i>Cryptomeria japonica</i> |
| | | cryptomeria | <i>Magnolia acuminata</i> |
| | | cucumber-tree | <i>Gnaphalium spp.</i> |
| | | cudweed | |

| Common Name | Scientific Name | Common Name | Scientific Name |
|----------------------|-------------------------------------|---------------------|----------------------------------|
| Culver's root | <i>Veronicastrum virginicum</i> | knight's-spur | |
| cunila | <i>Cunila spp.</i> | Douglas-fir | <i>Pseudotsuga menziesii</i> |
| curly dock | <i>Rumex crispus</i> | dovefoot geranium | <i>Geranium molle</i> |
| curly pondweed | <i>Potamogeton crispus</i> | downy | <i>Smilax pulverulenta</i> |
| curlyheads | <i>Clematis ochroleuca</i> | carrionflower | |
| currant | <i>Ribes spp.</i> | downy goldenrod | <i>Solidago puberula</i> |
| cursed buttercup | <i>Ranunculus sceleratus</i> | downy milkpea | <i>Galactia volubilis</i> |
| cutgrass | <i>Leersia spp.</i> | downy rattlesnake | <i>Goodyera pubescens</i> |
| cutleaf evening | <i>Oenothera laciniata</i> | plantain | <i>Elymus villosus</i> |
| primrose | | downy wildrye | <i>Aureolaria virginica</i> |
| cutleaf grapefern | <i>Botrychium dissectum</i> | downy yellow false | <i>Viola pubescens</i> |
| | <i>Dichantheium dichotomum</i> | foxglove | <i>Draba spp.</i> |
| cypress panicgrass | <i>Euphorbia cyparissias</i> | downy yellow violet | <i>Sporobolus spp.</i> |
| | <i>Erigeron annuus</i> | draba | <i>Lemna spp.</i> |
| cypress spurge | <i>Lolium temulentum</i> | dropseed | <i>Dicentra cucullaria</i> |
| | <i>Metasequoia glyptostroboides</i> | duckweed | |
| daisy fleabane | <i>Commelina spp.</i> | dutchman's | |
| Darnel ryegrass | <i>Decodon spp.</i> | breeches | |
| dawn redwood | <i>Vaccinium stamineum</i> | dutchman's pipe | <i>Aristolochia macrophylla</i> |
| | <i>Dichantheium clandestinum</i> | | <i>Potentilla canadensis</i> |
| dayflower | <i>Bulbostylis capillaris</i> | dwarf cinquefoil | <i>Panax trifolius</i> |
| decodon | <i>Cedrus deodara</i> | | <i>Gaylussacia dumosa</i> |
| deerberry | <i>Dianthus armeria</i> | dwarf ginseng | <i>Salicornia bigelovii</i> |
| | <i>Amorpha fruticosa</i> | dwarf huckleberry | <i>Eleocharis parvula</i> |
| deertongue | <i>Bidens frondosa</i> | dwarf dandelion | <i>Krigia spp.</i> |
| | <i>Clematis virginiana</i> | early azalea | <i>Rhododendron prinophyllum</i> |
| densetuft hairsedge | <i>Aralia spinosa</i> | | <i>Poa cuspidata</i> |
| | <i>Opuntia humifusa</i> | early bluegrass | <i>Ranunculus fascicularis</i> |
| Deodar cedar | <i>Rumex spp.</i> | early buttercup | <i>Thalictrum dioicum</i> |
| Deptford pink | <i>Cuscuta spp.</i> | | <i>Lysimachia terrestris</i> |
| desert false indigo | <i>Apocynum spp.</i> | early meadow-rue | <i>Symphyotrichum subulatum</i> |
| devil's beggartick | <i>Erythronium americanum</i> | earth loosestrife | <i>Sisyrinchium atlanticum</i> |
| devil's darning | <i>Cornus spp.</i> | | <i>Populus deltoides</i> |
| needles | <i>Polygonum punctatum</i> | eastern annual | <i>Tripsacum dactyloides</i> |
| devil's walkingstick | <i>Consolida ajacis</i> | saltmarsh aster | <i>Lilaeopsis chinensis</i> |
| devil's-tongue | | eastern blue-eyed | <i>Tsuga canadensis</i> |
| dock | | grass | <i>Eupatoriadelphus dubius</i> |
| dodder | | eastern cottonwood | |
| dogbane | | eastern gamagrass | |
| dogtooth violet | | | |
| | | eastern grasswort | |
| dogwood | | eastern hemlock | |
| dotted smartweed | | eastern Joe Pye | |
| | | weed | |
| doubtful | | | |

| Common Name | Scientific Name | Common Name | Scientific Name |
|-----------------------------|---------------------------------|-----------------------|--------------------------------|
| eastern leatherwood | <i>Dirca palustris</i> | fall panicgrass | <i>Panicum dichotomiflorum</i> |
| eastern marsh fern | <i>Thelypteris palustris</i> | fall phlox | <i>Phlox paniculata</i> |
| eastern redbud | <i>Cercis canadensis</i> | false baby's breath | <i>Galium mollugo</i> |
| eastern redcedar | <i>Juniperus virginiana</i> | false daisy | <i>Eclipta prostrata</i> |
| eastern silver aster | <i>Symphotrichum concolor</i> | false hellebore | <i>Veratrum spp.</i> |
| eastern star sedge | <i>Carex radiata</i> | false indigo | <i>Amorpha spp.</i> |
| eastern straw sedge | <i>Carex straminea</i> | false mannagrass | <i>Torreyochloa spp.</i> |
| eastern teaberry | <i>Gaultheria procumbens</i> | false nettle | <i>Boehmeria cylindrica</i> |
| eastern waterleaf | <i>Hydrophyllum virginianum</i> | false pennyroyal | <i>Hedeoma spp.</i> |
| eastern white pine | <i>Pinus strobus</i> | false pimpernel | <i>Lindernia spp.</i> |
| ebony spleenwort | <i>Asplenium platyneuron</i> | false Solomon's seal | <i>Maianthemum racemosum</i> |
| elderberry | <i>Sambucus canadensis</i> | false spleenwort | <i>Deparia spp.</i> |
| Elliott's goldenrod | <i>Solidago latissimifolia</i> | fern | |
| elm | <i>Ulmus spp.</i> | fern flatsedge | <i>Cyperus filicinus</i> |
| enchanter's nightshade | <i>Circaea spp.</i> | fernleaf yellow false | <i>Aureolaria pedicularia</i> |
| English ivy | <i>Hedera helix</i> | foxglove | <i>Festuca spp.</i> |
| English oak | <i>Quercus robur</i> | fescue | <i>Triosteum perfoliatum</i> |
| English plantain | <i>Plantago lanceolata</i> | feverwort | <i>Convolvulus arvensis</i> |
| erect knotweed | <i>Polygonum erectum</i> | field bindweed | <i>Bromus arvensis</i> |
| European beech | <i>Fagus sylvatica</i> | field brome | <i>Cerastium arvense</i> |
| European birch | <i>Betula pendula</i> | field chickweed | <i>Equisetum arvense</i> |
| European cranberrybush | <i>Viburnum opulus</i> | field horsetail | <i>Brassica rapa</i> |
| European gooseberry | <i>Ribes uva-crispa</i> | field mustard | <i>Viola arvensis</i> |
| European heliotrope | <i>Heliotropium europaeum</i> | field pansy | <i>Paspalum laeve</i> |
| European hornbeam | <i>Carpinus betulus</i> | field paspalum | <i>Thlaspi arvense</i> |
| European larch | <i>Larix decidua</i> | field pennycress | <i>Lepidium campestre</i> |
| European lily of the valley | <i>Convallaria majalis</i> | field pepperweed | <i>Artemisia campestris</i> |
| European mountain ash | <i>Sorbus aucuparia</i> | field sagewort | <i>Sonchus arvensis</i> |
| European privet | <i>Ligustrum vulgare</i> | field sowthistle | <i>Cirsium discolor</i> |
| European spindle tree | <i>Euonymus europaeus</i> | field thistle | <i>Ranunculus ficaria</i> |
| European stickseed | <i>Lappula squarrosa</i> | fig buttercup | <i>Scrophularia spp.</i> |
| evening primrose | <i>Oenothera spp.</i> | figwort | <i>Fimbristylis spp.</i> |
| | | fimbry | <i>Festuca filiformis</i> |
| | | fineleaf sheep fescue | |
| | | fir | <i>Abies spp.</i> |
| | | fireweed | <i>Chamerion angustifolium</i> |
| | | fiveleaf orchid | <i>Isotria spp.</i> |
| | | flatsedge | <i>Cyperus spp.</i> |
| | | flax | <i>Linum spp.</i> |
| | | flaxleaf whitetop | <i>Ionactis linariifolius</i> |

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|----------------------|---------------------------------|----------------------|--------------------------------|
| aster | | globefruit | <i>Ludwigia</i> |
| fleabane | <i>Erigeron spp.</i> | primrose-willow | <i>sphaerocarpa</i> |
| floating mannagrass | <i>Glyceria septentrionalis</i> | glossy buckthorn | <i>Frangula alnus</i> |
| flowering dogwood | <i>Cornus florida</i> | goatgrass | <i>Aegilops spp.</i> |
| forget-me-not | <i>Myosotis spp.</i> | goatsbeard | <i>Tragopogon spp.</i> |
| forked bluecurls | <i>Trichostema dichotomum</i> | golden clover | <i>Trifolium aureum</i> |
| forked rush | <i>Juncus dichotomus</i> | golden hedgehyssop | <i>Gratiola aurea</i> |
| forsythia | <i>Forsythia spp.</i> | golden ragwort | <i>Packera aurea</i> |
| fountaingrass | <i>Pennisetum spp.</i> | goldenaster | <i>Chrysopsis spp.</i> |
| four o'clock | <i>Mirabilis spp.</i> | goldenraintrees | <i>Koelreuteria paniculata</i> |
| fowl mannagrass | <i>Glyceria striata</i> | goldenrod | <i>Solidago spp.</i> |
| fox grape | <i>Vitis labrusca</i> | goldenseal | <i>Hydrastis canadensis</i> |
| fox sedge | <i>Carex vulpinoidea</i> | Goldie's woodfern | <i>Dryopteris goldiana</i> |
| foxtail | <i>Alopecurus spp.</i> | goldthread | <i>Coptis spp.</i> |
| foxtail barley | <i>Hordeum jubatum</i> | goosefoot | <i>Chenopodium spp.</i> |
| foxtail bristlegrass | <i>Setaria italica</i> | goosegrass | <i>Eleusine spp.</i> |
| foxtail sedge | <i>Carex alopecoidea</i> | grape | <i>Vitis spp.</i> |
| fragrant sumac | <i>Rhus aromatica</i> | grape hyacinth | <i>Muscari spp.</i> |
| fringed loosestrife | <i>Lysimachia ciliata</i> | grapefern | <i>Botrychium spp.</i> |
| fringed orchid | <i>Platanthera spp.</i> | grassleaf rush | <i>Juncus marginatus</i> |
| fringed sedge | <i>Carex crinita</i> | grass-like starwort | <i>Stellaria graminea</i> |
| fuzzy wuzzy sedge | <i>Carex hirsutella</i> | grasswort | <i>Lilaeopsis spp.</i> |
| fuzzybean | <i>Strophostyles spp.</i> | gray birch | <i>Betula populifolia</i> |
| galearis | <i>Galearis spp.</i> | gray dogwood | <i>Cornus racemosa</i> |
| gall of the earth | <i>Prenanthes trifoliolata</i> | gray poplar | <i>Populus xcanescens</i> |
| gamagrass | <i>Tripsacum spp.</i> | great blue lobelia | <i>Lobelia siphilitica</i> |
| garden asparagus | <i>Asparagus officinalis</i> | great ragweed | <i>Ambrosia trifida</i> |
| garden sorrel | <i>Rumex acetosa</i> | green adder's-mouth | <i>Malaxis unifolia</i> |
| garden vetch | <i>Vicia sativa</i> | orchid | |
| garlic mustard | <i>Alliaria petiolata</i> | green arrow arum | <i>Peltandra virginica</i> |
| gentian | <i>Gentiana spp.</i> | green ash | <i>Fraxinus pennsylvanica</i> |
| geranium | <i>Geranium spp.</i> | green bristlegrass | <i>Setaria viridis</i> |
| giant fescue | <i>Schedonorus giganteus</i> | green bulrush | <i>Scirpus atrovirens</i> |
| giant goldenrod | <i>Solidago gigantea</i> | green carpetweed | <i>Mollugo verticillata</i> |
| giant hyssop | <i>Agastache spp.</i> | green comet | <i>Asclepias viridiflora</i> |
| giant knotweed | <i>Polygonum sachalinense</i> | milkweed | |
| giantchickweed | <i>Myosoton aquaticum</i> | green fringed orchid | <i>Platanthera lacera</i> |
| ginkgo | <i>Ginkgo biloba</i> | Greene's rush | <i>Juncus greenei</i> |
| ginkgo | <i>Ginkgo spp.</i> | ground ivy | <i>Glechoma bederacea</i> |
| ginseng | <i>Panax spp.</i> | groundcherry | <i>Physalis spp.</i> |
| globe flatsedge | <i>Cyperus echinatus</i> | groundnut | <i>Apios spp.</i> |
| | | groundsel tree | <i>Baccharis halimifolia</i> |

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|------------------------------|-----------------------------------|-------------------------|---------------------------------|
| hackberry | <i>Celtis spp.</i> | hickory | <i>Carya spp.</i> |
| hairgrass | <i>Deschampsia spp.</i> | highbush blueberry | <i>Vaccinium corymbosum</i> |
| hairsedge | <i>Bulbostylis spp.</i> | hoarypea | <i>Tephrosia spp.</i> |
| hairy cat's ear | <i>Hypochaeris radicata</i> | hobblebush | <i>Viburnum lantanoides</i> |
| hairy crabgrass | <i>Digitaria sanguinalis</i> | holly | <i>Ilex spp.</i> |
| hairy lespedeza | <i>Lespedeza hirta</i> | hollyfern | <i>Polystichum spp.</i> |
| hairy lettuce | <i>Lactuca hirsuta</i> | hollyhock | <i>Alcea spp.</i> |
| hairy skullcap | <i>Scutellaria elliptica</i> | honestwort | <i>Cryptotaenia spp.</i> |
| hairy small-leaf ticktrefoil | <i>Desmodium ciliare</i> | honeylocust | <i>Gleditsia triacanthos</i> |
| hairy Solomon's seal | <i>Polygonatum pubescens</i> | honeysuckle | <i>Lonicera spp.</i> |
| hairy sunflower | <i>Helianthus hirsutus</i> | hooded arrowhead | <i>Sagittaria calycina</i> |
| hairy woodland brome | <i>Bromus pubescens</i> | hooked bristlegrass | <i>Setaria verticillata</i> |
| halberd-leaved rose mallow | <i>Hibiscus laevis</i> | hop | <i>Humulus spp.</i> |
| handsome Harry | <i>Rhexia virginica</i> | hophornbeam | <i>Ostrya virginiana</i> |
| hard fescue | <i>Festuca brevipila</i> | hoptree | <i>Ptelea spp.</i> |
| hardy rubber tree | <i>Eucommia ulmoides</i> | horehound | <i>Marrubium vulgare</i> |
| harvestbells | <i>Gentiana saponaria</i> | hornwort | <i>Anthoxanthum spp.</i> |
| hawkweed | <i>Hieracium spp.</i> | hornwort | <i>Ceratophyllum spp.</i> |
| hawthorn | <i>Crataegus spp.</i> | Horsebalm | <i>Collinsonia spp.</i> |
| hayscented fern | <i>Dennstaedtia spp.</i> | horsechestnut | <i>Aesculus hippocastanum</i> |
| hazel alder | <i>Alnus serrulata</i> | horseflyweed | <i>Baptisia tinctoria</i> |
| hazel dodder | <i>Cuscuta coryli</i> | horsetail | <i>Equisetum spp.</i> |
| hazelnut | <i>Corylus spp.</i> | horseweed | <i>Conyza spp.</i> |
| heartleaf four o'clock | <i>Mirabilis nyctaginea</i> | hound's tongue | <i>Cynoglossum spp.</i> |
| heartleaf plantain | <i>Plantago cordata</i> | Howell's pussytoes | <i>Antennaria howellii</i> |
| hedge false bindweed | <i>Calystegia sepium</i> | huckleberry | <i>Gaylussacia spp.</i> |
| hedge maple | <i>Acer campestre</i> | husk tomato | <i>Physalis pubescens</i> |
| hedgehyssop | <i>Gratiola spp.</i> | hydrangea | <i>Hydrangea spp.</i> |
| hedgenettle | <i>Stachys spp.</i> | hyssop | <i>Hyssopus officinalis</i> |
| Heller's rosette grass | <i>Dichanthelium oligosanthes</i> | hyssop loosestrife | <i>Lythrum hyssopifolium</i> |
| helmet flower | <i>Scutellaria integrifolia</i> | hyssopleaf | <i>Eupatorium hyssopifolium</i> |
| hemlock rosette grass | <i>Dichanthelium sabulorum</i> | hedgenettle | <i>Lechea racemulosa</i> |
| hempvine | <i>Mikania spp.</i> | hyssopleaf thoroughwort | <i>Medeola virginiana</i> |
| Henbit | <i>Lamium spp.</i> | Illinois pinweed | <i>Eleusine indica</i> |
| hepatica | <i>Hepatica nobilis</i> | Indian cucumber | <i>Castilleja spp.</i> |
| herbwilliam | <i>Ptilimnium capillaceum</i> | Indian goosegrass | <i>Duchesnea indica</i> |
| | | Indian paintbrush | <i>Sorghastrum nutans</i> |
| | | Indian strawberry | <i>Monotropa uniflora</i> |
| | | Indiangrass | <i>Lobelia inflata</i> |
| | | Indianpipe | |
| | | Indian-tobacco | |

| Common Name | Scientific Name | Common Name | Scientific Name |
|------------------------|--------------------------------|------------------------------|---------------------------------|
| inkberry | <i>Ilex glabra</i> | katsura tree | <i>leucolepis</i> |
| intermediate woodfern | <i>Dryopteris intermedia</i> | Kentucky bluegrass | <i>Cercidiphyllum japonicum</i> |
| interrupted fern | <i>Osmunda claytoniana</i> | Kentucky coffeetree | <i>Poa pratensis</i> |
| inundated clubmoss | <i>Lycopodiella inundata</i> | kingdevil | <i>Gymnocladus dioicus</i> |
| iris | <i>Iris spp.</i> | kinnikinnick | <i>Hieracium praealtum</i> |
| ironweed | <i>Vernonia spp.</i> | kiss me over the garden gate | <i>Arctostaphylos uva-ursi</i> |
| ivy | <i>Hedera spp.</i> | knight's-spur | <i>Polygonum orientale</i> |
| Jack in the pulpit | <i>Arisaema triphyllum</i> | kousa dogwood | <i>Consolida spp.</i> |
| Jacob's-ladder | <i>Polemonium spp.</i> | kudzu | <i>Cornus kousa</i> |
| Japanese angelica-tree | <i>Aralia elata</i> | kwanzan cherry | <i>Pueraria montana</i> |
| Japanese barberry | <i>Berberis thunbergii</i> | Labrador tea | <i>Prunus 'Kwanzan'</i> |
| Japanese black pine | <i>Pinus thunbergii</i> | lace grass | <i>Ledum spp.</i> |
| Japanese bristlegrass | <i>Setaria faberi</i> | lady's slipper | <i>Eragrostis capillaris</i> |
| Japanese honeysuckle | <i>Lonicera japonica</i> | lady's thumb | <i>Cypripedium spp.</i> |
| Japanese hop | <i>Humulus japonicus</i> | lady's tresses | <i>Polygonum cespitosum</i> |
| Japanese knotweed | <i>Polygonum cuspidatum</i> | lambquarters | <i>Spiranthes spp.</i> |
| Japanese maple | <i>Acer palmatum</i> | lanceleaf figwort | <i>Chenopodium album</i> |
| Japanese pachysandra | <i>Pachysandra terminalis</i> | larch | <i>Scrophularia lanceolata</i> |
| Japanese snowball | <i>Viburnum plicatum</i> | large St. Johnswort | <i>Larix spp.</i> |
| Japanese snowbell | <i>Styrax japonicus</i> | large whorled pogonia | <i>Hypericum majus</i> |
| Japanese sophora | <i>Styphnolobium japonicum</i> | large yellow loosestrife | <i>Isotria verticillata</i> |
| Japanese tree lilac | <i>Syringa reticulata</i> | largebracted plantain | <i>Lysimachia punctata</i> |
| Japanese yew | <i>Taxus cuspidata</i> | large-flower primrose-willow | <i>Plantago aristata</i> |
| Japanese zelkova | <i>Zelkova serrata</i> | late purple aster | <i>Ludwigia grandiflora</i> |
| Jerusalem artichoke | <i>Helianthus tuberosus</i> | lateflowering thoroughwort | <i>Symphyotrichum patens</i> |
| Jesuit's bark | <i>Iva frutescens</i> | laurel | <i>Eupatorium serotinum</i> |
| jetbead | <i>Rhodotypos scandens</i> | lavender thrift | <i>Kalmia spp.</i> |
| jewelweed | <i>Impatiens capensis</i> | leafy pondweed | <i>Limonium carolinianum</i> |
| jimsonweed | <i>Datura stramonium</i> | leather flower | <i>Potamogeton foliosus</i> |
| Joe Pye weed | <i>Eupatoriadelphus spp.</i> | leatherleaf | <i>Clematis spp.</i> |
| Johnsongrass | <i>Sorghum halepense</i> | | <i>Chamaedaphne</i> |
| jointed goatgrass | <i>Aegilops cylindrica</i> | | |
| jointweed | <i>Polygonella spp.</i> | | |
| juniper | <i>Juniperus spp.</i> | | |
| justiceweed | <i>Eupatorium</i> | | |

| Common Name | Scientific Name | Common Name | Scientific Name |
|-------------------------------|---|----------------------|------------------------------|
| leathery grapefern | <i>calyculata</i> <i>Botrychium</i> <i>multifidum</i> | loosestrife | |
| Leggett's pinweed | <i>Lechea pulchella</i> | magnolia | <i>Magnolia spp.</i> |
| lespedeza | <i>Lespedeza spp.</i> | Mahaleb cherry | <i>Prunus mahaleb</i> |
| lesser burdock | <i>Arctium minus</i> | maiden fern | <i>Thelypteris spp.</i> |
| lesser Canadian St. Johnswort | <i>Hypericum canadense</i> | maidenhair fern | <i>Adiantum spp.</i> |
| lesser snakeroot | <i>Ageratina aromatica</i> | maleberry | <i>Lyonia ligustrina</i> |
| lettuce | <i>Lactuca spp.</i> | mallow | <i>Malva spp.</i> |
| Leyland cypress | <i>x Cupressocyparis leylandii</i> | man of the earth | <i>Ipomoea pandurata</i> |
| lilac | <i>Syringa spp.</i> | mannagrass | <i>Glyceria spp.</i> |
| lily | <i>Lilium spp.</i> | manyspike flatsedge | <i>Cyperus polystachyos</i> |
| linearleaf snapdragon | <i>Misopates orontium</i> | manzanita | <i>Arctostaphylos</i> |
| lined sedge | <i>Carex striatula</i> | maple | <i>Acer spp.</i> |
| little bluestem | <i>Schizachyrium scoparium</i> | mapleleaf goosefoot | <i>Chenopodium simplex</i> |
| little evening primrose | <i>Oenothera perennis</i> | mapleleaf viburnum | <i>Viburnum acerifolium</i> |
| little lovegrass | <i>Eragrostis minor</i> | marginal woodfern | <i>Dryopteris marginalis</i> |
| littleleaf buttercup | <i>Ranunculus abortivus</i> | marijuana | <i>Cannabis sativa</i> |
| littleleaf linden | <i>Tilia cordata</i> | marsh bristlegrass | <i>Setaria parviflora</i> |
| lizard's tail | <i>Saururus cernuus</i> | marsh cudweed | <i>Gnaphalium uliginosum</i> |
| lobelia | <i>Lobelia spp.</i> | marsh fimbry | <i>Fimbristylis castanea</i> |
| log fern | <i>Dryopteris celsa</i> | marsh marigold | <i>Caltha spp.</i> |
| Lombardy poplar | <i>Populus nigra</i> | marsh rose gentian | <i>Sabatia dodecandra</i> |
| London planetree | <i>Platanus hybrida</i> | marsh seedbox | <i>Ludwigia palustris</i> |
| longleaf summer bluet | <i>Houstonia longifolia</i> | marsh St. Johnswort | <i>Triadenum virginicum</i> |
| Long's sedge | <i>Carex longii</i> | marsh straw sedge | <i>Carex hormathodes</i> |
| longstalk starwort | <i>Stellaria longipes</i> | marshpepper | <i>Polygonum hydropiper</i> |
| longstyle sweetroot | <i>Osmorhiza longistylis</i> | knotweed | <i>Chrysopsis mariana</i> |
| loosestrife | <i>Lythrum spp.</i> | Maryland goldenaster | |
| lopsided rush | <i>Juncus secundus</i> | Maryland sanicle | <i>Sanicula marilandica</i> |
| lousewort | <i>Pedicularis spp.</i> | mat sandbur | <i>Cenchrus longispinus</i> |
| lovegrass | <i>Eragrostis spp.</i> | mayapple | <i>Podophyllum peltatum</i> |
| low rough aster | <i>Eurybia radula</i> | mayflower | <i>Maianthemum spp.</i> |
| low spearwort | <i>Ranunculus pusillus</i> | meadow anemone | <i>Anemone canadensis</i> |
| lowbush blueberry | <i>Vaccinium angustifolium</i> | meadow fescue | <i>Schedonorus pratensis</i> |
| lowland bladderfern | <i>Cystopteris protrusa</i> | meadow foxtail | <i>Alopecurus pratensis</i> |
| lowland yellow | <i>Lysimachia hybrida</i> | | |

| Common Name | Scientific Name | Common Name | Scientific Name |
|---------------------|----------------------------|---------------------|----------------------------|
| meadow garlic | <i>Allium canadense</i> | narrowleaf | <i>Trichostema</i> |
| meadow spikemoss | <i>Selaginella apoda</i> | bluecurls | <i>setaceum</i> |
| meadowbeauty | <i>Rhexia spp.</i> | narrowleaf | <i>Sisyrinchium</i> |
| meadowparsnip | <i>Thaspium spp.</i> | blue-eyed grass | <i>angustifolium</i> |
| meadow-rue | <i>Thalictrum spp.</i> | narrowleaf cattail | <i>Typha angustifolia</i> |
| melon | <i>Cucumis spp.</i> | narrowleaf evening | <i>Oenothera fruticosa</i> |
| mermaidweed | <i>Proserpinaca spp.</i> | primrose | |
| Mexican muhly | <i>Muhlenbergia</i> | narrowleaf vervain | <i>Verbena simplex</i> |
| | <i>mexicana</i> | narrowleaf whitetop | <i>Sericocarpus</i> |
| Mexican tea | <i>Chenopodium</i> | aster | <i>linifolius</i> |
| | <i>ambrosioides</i> | necklace sedge | <i>Carex projecta</i> |
| mild water pepper | <i>Polygonum</i> | needle spikerush | <i>Eleocharis</i> |
| | <i>hydropiperoides</i> | | <i>acicularis</i> |
| milk puslane | <i>Chamaesyce</i> | needlepod rush | <i>Juncus scirpoides</i> |
| | <i>maculata</i> | netted chainfern | <i>Woodwardia</i> |
| milkpea | <i>Galactia spp.</i> | | <i>areolata</i> |
| milkweed | <i>Asclepias spp.</i> | New England aster | <i>Symphyotrichum</i> |
| mimosa | <i>Albizia julibrissin</i> | | <i>novae-angliae</i> |
| mint | <i>Mentha spp.</i> | New Jersey tea | <i>Ceanothus</i> |
| minute duckweed | <i>Lemna perpusilla</i> | | <i>americanus</i> |
| misopates | <i>Misopates spp.</i> | New York aster | <i>Symphyotrichum</i> |
| moccasin flower | <i>Cypripedium acaule</i> | | <i>novi-belgii</i> |
| mockernut hickory | <i>Carya alba</i> | New York fern | <i>Thelypteris</i> |
| monkeyflower | <i>Mimulus spp.</i> | | <i>noveboracensis</i> |
| moonseed | <i>Menispermum</i> | New York ironweed | <i>Vernonia</i> |
| morning-glory | <i>Ipomoea spp.</i> | | <i>noveboracensis</i> |
| Morrow's | <i>Lonicera morrowii</i> | nightshade | <i>Solanum spp.</i> |
| honeysuckle | | nimblewill | <i>Muhlenbergia</i> |
| mosquitofern | <i>Azolla spp.</i> | | <i>schreberi</i> |
| moss | | nodding fescue | <i>Festuca</i> |
| moss phlox | <i>Phlox subulata</i> | | <i>subverticillata</i> |
| moth mullein | <i>Verbascum</i> | nodding thistle | <i>Carduus nutans</i> |
| | <i>blattaria</i> | noddingcaps | <i>Triphora spp.</i> |
| mountain laurel | <i>Kalmia latifolia</i> | northern bayberry | <i>Morella</i> |
| mountain silverbell | <i>Halesia tetraptera</i> | | <i>pensylvanica</i> |
| mountainmint | <i>Pycnanthemum spp.</i> | northern bog aster | <i>Symphyotrichum</i> |
| mouse-ear | <i>Cerastium</i> | | <i>boreale</i> |
| chickweed | <i>fontanum</i> | northern bugleweed | <i>Lycopus uniflorus</i> |
| mugwort | <i>Artemisia vulgaris</i> | northern coastal | <i>Viola brittoniana</i> |
| Muhlenberg's sedge | <i>Carex</i> | violet | |
| | <i>muehlenbergii</i> | northern long sedge | <i>Carex folliculata</i> |
| muhly | <i>Muhlenbergia spp.</i> | northern | <i>Adiantum pedatum</i> |
| mulberry | <i>Morus spp.</i> | maidenhair | |
| multiflora rose | <i>Rosa multiflora</i> | northern red oak | <i>Quercus rubra</i> |
| nailwort | <i>Paronychia spp.</i> | northern spicebush | <i>Lindera benzoin</i> |
| nannyberry | <i>Viburnum lentago</i> | northern wildrice | <i>Zizania palustris</i> |
| Nantucket | <i>Amelanchier</i> | Norway maple | <i>Acer platanoides</i> |
| serviceberry | <i>nantucketensis</i> | Norway maple | <i>Acer platanoides</i> |

| Common Name | Scientific Name | Common Name | Scientific Name |
|--------------------------|----------------------------------|---------------------------|-----------------------------------|
| 'crimson king' | <i>'Crimson king'</i> | paradise apple | <i>Malus pumila</i> |
| Norway spruce | <i>Picea abies</i> | Parlin's pussytoes | <i>Antennaria parlinii</i> |
| Norwegian cinquefoil | <i>Potentilla norvegica</i> | parsnip | <i>Pastinaca spp.</i> |
| nutgrass | <i>Cyperus rotundus</i> | partridge pea | <i>Chamaecrista fasciculata</i> |
| nutrush | <i>Scleria spp.</i> | path rush | <i>Juncus tenuis</i> |
| Nuttall's milkwort | <i>Polygala nuttallii</i> | pawpaw | <i>Asimina triloba</i> |
| Nuttall's ticktrefoil | <i>Desmodium nuttallii</i> | pea | <i>Lathyrus spp.</i> |
| oak | <i>Quercus spp.</i> | peach | <i>Prunus persica</i> |
| Oakes' evening primrose | <i>Oenothera oakesiana</i> | pearl millet | <i>Pennisetum glaucum</i> |
| oat | <i>Avena spp.</i> | pearlwort | <i>Sagina spp.</i> |
| oatgrass | <i>Arrhenatherum spp.</i> | pencilflower | <i>Stylosanthes spp.</i> |
| oatgrass | <i>Danthonia spp.</i> | Pennsylvania bittercress | <i>Cardamine pensylvanica</i> |
| obedient plant | <i>Physostegia virginiana</i> | Pennsylvania blackberry | <i>Rubus pensilvanicus</i> |
| oldenlandia | <i>Oldenlandia spp.</i> | Pennsylvania buttercup | <i>Ranunculus pensylvanicus</i> |
| olney threesquare | <i>Schoenoplectus americanus</i> | Pennsylvania sedge | <i>Carex pensylvanica</i> |
| oneflowered broomrape | <i>Orobanche uniflora</i> | Pennsylvania smartweed | <i>Polygonum pensylvanicum</i> |
| onion | <i>Allium spp.</i> | pennycress | <i>Thlaspi spp.</i> |
| opium poppy | <i>Papaver somniferum</i> | pepperweed | <i>Lepidium spp.</i> |
| orange daylily | <i>Hemerocallis fulva</i> | perennial ryegrass | <i>Lolium perenne</i> |
| orange milkwort | <i>Polygala lutea</i> | perennial saltmarsh aster | <i>Symphyotrichum tenuifolium</i> |
| orchardgrass | <i>Dactylis glomerata</i> | perennial wallrocket | <i>Diploaxis tenuifolia</i> |
| osage orange | <i>Maclura pomifera</i> | perfoliate bellwort | <i>Uvularia perfoliata</i> |
| osmunda | <i>Osmunda spp.</i> | periwinkle | <i>Vinca spp.</i> |
| oval-leaf knotweed | <i>Polygonum arenastrum</i> | Peruvian dodder | <i>Cuscuta obtusiflora</i> |
| ovate spikerush | <i>Eleocharis ovata</i> | Philadelphia panicgrass | <i>Panicum philadelphicum</i> |
| overcup oak | <i>Quercus lyrata</i> | phlox | <i>Phlox spp.</i> |
| oxeye daisy | <i>Leucanthemum vulgare</i> | phragmites | <i>Phragmites australis</i> |
| pale false mannagrass | <i>Torreyochloa pallida</i> | pickerelweed | <i>Pontederia cordata</i> |
| pale smartweed | <i>Polygonum lapathifolium</i> | pickleweed | <i>Salicornia spp.</i> |
| pale touch-me-not | <i>Impatiens pallida</i> | piedmont staggerbush | <i>Lyonia mariana</i> |
| palegreen orchid | <i>Platanthera flava</i> | pignut hickory | <i>Carya glabra</i> |
| panicgrass | <i>Panicum spp.</i> | pigweed | <i>Amaranthus spp.</i> |
| panickedleaf ticktrefoil | <i>Desmodium paniculatum</i> | pilewort | <i>Erechtites hieraciifolia</i> |
| paper birch | <i>Betula papyrifera</i> | pimpernel | <i>Anagallis spp.</i> |
| paper mulberry | <i>Broussonetia papyrifera</i> | pin cherry | <i>Prunus pensylvanica</i> |
| | | pin oak | <i>Quercus palustris</i> |

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|----------------------|------------------------------|-----------------------|----------------------------|
| pine | <i>Pinus spp.</i> | poverty oatgrass | <i>Danthonia spicata</i> |
| pine barren | <i>Cyperus retrorsus</i> | prairie cordgrass | <i>Spartina pectinata</i> |
| flatsedge | | prairie sunflower | <i>Helianthus</i> |
| pine barren | <i>Minuartia</i> | | <i>petiolaris</i> |
| stitchwort | <i>caroliniana</i> | prairie threeawn | <i>Aristida oligantha</i> |
| pinemap | <i>Monotropa</i> | prickly lettuce | <i>Lactuca serriola</i> |
| | <i>hypopithys</i> | pricklyash | <i>Zanthoxylum spp.</i> |
| pink azalea | <i>Rhododendron</i> | pricklypear | <i>Opuntia spp.</i> |
| | <i>periclymenoides</i> | primrose-willow | <i>Ludwigia spp.</i> |
| pink fuzzybean | <i>Strophostyles</i> | prince's pine | <i>Chimaphila spp.</i> |
| | <i>umbellata</i> | princesstree | <i>Paulownia</i> |
| pinweed | <i>Lechea spp.</i> | | <i>tomentosa</i> |
| pipsissewa | <i>Chimaphila</i> | privet | <i>Ligustrum spp.</i> |
| | <i>umbellata</i> | prostrate knotweed | <i>Polygonum</i> |
| pitch pine | <i>Pinus rigida</i> | | <i>aviculare</i> |
| pitseed goosefoot | <i>Chenopodium</i> | prostrate pigweed | <i>Amaranthus albus</i> |
| | <i>berlandieri</i> | prostrate ticktrefoil | <i>Desmodium</i> |
| plantain | <i>Plantago spp.</i> | | <i>rotundifolium</i> |
| plantain lily | <i>Hosta</i> | purple bergamot | <i>Monarda media</i> |
| pleatleaf knotweed | <i>Polygonum tenue</i> | purple chokeberry | <i>Photinia floribunda</i> |
| Plukenet's flatsedge | <i>Cyperus plukenetii</i> | purple gerardia | <i>Agalinis purpurea</i> |
| plum | <i>Prunus spp.</i> | purple loosestrife | <i>Lythrum salicaria</i> |
| pointedleaf | <i>Desmodium</i> | purple lovegrass | <i>Eragrostis</i> |
| ticktrefoil | <i>glutinosum</i> | | <i>spectabilis</i> |
| Poison ivy | <i>Toxicodendron</i> | purple | <i>Thaspium</i> |
| | <i>radicans</i> | meadowparsnip | <i>trifoliatum</i> |
| poison sumac | <i>Toxicodendron</i> | purple milkweed | <i>Asclepias</i> |
| | <i>vernix</i> | | <i>purpurascens</i> |
| polygala | <i>Polygala spp.</i> | purple sandgrass | <i>Triplasis purpurea</i> |
| polypody | <i>Polypodium spp.</i> | purpleleaf plum | <i>Prunus cerasifera</i> |
| pond | <i>Callitriche stagnalis</i> | purple-head | <i>Helenium</i> |
| water-starwort | | sneezeweed | <i>flexuosum</i> |
| pond-lily | <i>Nuphar spp.</i> | purplestem aster | <i>Symphyotrichum</i> |
| pondweed | <i>Potamogeton spp.</i> | | <i>puniceum</i> |
| pondweed | <i>Stuckenia spp.</i> | purplestem | <i>Bidens connata</i> |
| poorjoe | <i>Diodia teres</i> | beggarticks | |
| poorland flatsedge | <i>Cyperus</i> | purpletop tridens | <i>Tridens flavus</i> |
| | <i>compressus</i> | purslane | <i>Portulaca spp.</i> |
| poor-man's-pepper | <i>Lepidium</i> | pussy willow | <i>Salix discolor</i> |
| | <i>virginicum</i> | pussytoes | <i>Antennaria spp.</i> |
| poppy | <i>Papaver spp.</i> | quackgrass | <i>Elymus repens</i> |
| porcelain-berry | <i>Ampelopsis</i> | quaking aspen | <i>Populus tremuloides</i> |
| | <i>brevipedunculata</i> | Queen Anne's lace | <i>Daucus carota</i> |
| possumhaw | <i>Viburnum nudum</i> | queendevil | <i>Hieracium gronovii</i> |
| post oak | <i>Quercus stellata</i> | quill sedge | <i>Carex tenera</i> |
| poverty brome | <i>Bromus sterilis</i> | rabbitfoot clover | <i>Trifolium arvense</i> |
| poverty dropseed | <i>Sporobolus</i> | radish | <i>Raphanus spp.</i> |
| | <i>vaginiflorus</i> | ragged robin | <i>Lychnis flos-cuculi</i> |

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|----------------------|----------------------------|--------------------|----------------------------|
| ragweed | <i>Ambrosia spp.</i> | rose of Plymouth | <i>grandiflora</i> |
| ragwort | <i>Packera spp.</i> | rose of Sharon | <i>Sabatia stellaris</i> |
| rare clubmoss | <i>Lycopodium</i> | rosepink | <i>Hibiscus syriacus</i> |
| | <i>obscurum</i> | rosette grass | <i>Sabatia angularis</i> |
| rattlebox | <i>Crotalaria spp.</i> | rotala | <i>Dichanthelium spp.</i> |
| rattlesnake fern | <i>Botrychium</i> | rough avens | <i>Rotala spp.</i> |
| | <i>virginianum</i> | rough | <i>Geum laciniatum</i> |
| rattlesnake | <i>Glyceria canadensis</i> | rough | <i>Echinochloa</i> |
| mannagrass | | barnyardgrass | <i>muricata</i> |
| rattlesnakemaster | <i>Eryngium</i> | rough bentgrass | <i>Agrostis scabra</i> |
| | <i>aquaticum</i> | rough bluegrass | <i>Poa trivialis</i> |
| rattlesnakeroot | <i>Prenanthes spp.</i> | rough boneset | <i>Eupatorium</i> |
| rattlesnakeweed | <i>Hieracium venosum</i> | | <i>pilosum</i> |
| red chokeberry | <i>Photinia pyrifolia</i> | roughfruit | <i>Amaranthus</i> |
| red clover | <i>Trifolium pratense</i> | amaranth | <i>tuberculatus</i> |
| red columbine | <i>Aquilegia</i> | rough-fruited | <i>Potentilla recta</i> |
| | <i>canadensis</i> | cinquefoil | |
| red fescue | <i>Festuca rubra</i> | roundhead | <i>Lespedeza capitata</i> |
| red goosefoot | <i>Chenopodium</i> | lespedeza | |
| | <i>rubrum</i> | roundleaf | <i>Smilax rotundifolia</i> |
| red hickory | <i>Carya ovalis</i> | greenbrier | |
| red maple | <i>Acer rubrum</i> | roundleaf | <i>Eupatorium</i> |
| red milkweed | <i>Asclepias rubra</i> | thoroughwort | <i>rotundifolium</i> |
| red mulberry | <i>Morus rubra</i> | roundleaf yellow | <i>Viola rotundifolia</i> |
| red pine | <i>Pinus resinosa</i> | violet | |
| red spruce | <i>Picea rubens</i> | roundseed | <i>Dichanthelium</i> |
| redosier dogwood | <i>Cornus sericea</i> | panicgrass | <i>sphaerocarpon</i> |
| redring milkweed | <i>Asclepias variegata</i> | royal fern | <i>Osmunda regalis</i> |
| redstem stork's bill | <i>Erodium cicutarium</i> | rue anemone | <i>Thalictrum</i> |
| redtop | <i>Agrostis gigantea</i> | | <i>thalictroides</i> |
| redtop panicgrass | <i>Panicum rigidulum</i> | rush | <i>Juncus spp.</i> |
| reed | <i>Phragmites spp.</i> | Russian olive | <i>Elaeagnus</i> |
| reedgrass | <i>Calamagrostis spp.</i> | | <i>angustifolia</i> |
| reflexed sedge | <i>Carex retroflexa</i> | Russian thistle | <i>Salsola kali</i> |
| rhododendron | <i>Rhododendron spp.</i> | rye | <i>Secale spp.</i> |
| rice cutgrass | <i>Leersia oryzoides</i> | rye brome | <i>Bromus secalinus</i> |
| ridged yellow flax | <i>Linum striatum</i> | ryegrass | <i>Lolium spp.</i> |
| river birch | <i>Betula nigra</i> | sagebrush | <i>Artemisia spp.</i> |
| riverbank wildrye | <i>Elymus riparius</i> | saline saltbush | <i>Atriplex subspicata</i> |
| roadside | <i>Lepidium rudemale</i> | saltbush | <i>Atriplex spp.</i> |
| pepperweed | | saltgrass | <i>Distichlis spicata</i> |
| rock polypody | <i>Polypodium</i> | saltmarsh | <i>Puccinellia</i> |
| | <i>virginianum</i> | alkaligrass | <i>fasciculata</i> |
| rose | <i>Rosa spp.</i> | salt-marsh bulrush | <i>Schoenoplectus</i> |
| rose gentian | <i>Sabatia spp.</i> | | <i>robustus</i> |
| rose mallow | <i>Hibiscus</i> | saltmarsh false | <i>Agalinis maritima</i> |
| | <i>moscheutos</i> | foxglove | |
| rose moss | <i>Portulaca</i> | saltmeadow | <i>Spartina patens</i> |

| Common Name | Scientific Name | Common Name | Scientific Name |
|----------------------|---------------------------------|-----------------------|-----------------------------------|
| cordgrass | | shepherd's purse | <i>Capsella bursa-pastoris</i> |
| saltmeadow rush | <i>Juncus gerardii</i> | shingle oak | <i>Quercus imbricaria</i> |
| sand bittercress | <i>Cardamine parviflora</i> | shining clubmoss | <i>Huperzia lucidula</i> |
| sandbar willow | <i>Salix interior</i> | shore little bluestem | <i>Schizachyrium littorale</i> |
| sandbur | <i>Cenchrus spp.</i> | shortawn foxtail | <i>Alopecurus aequalis</i> |
| sanddune sandbur | <i>Cenchrus tribuloides</i> | shortleaf pine | <i>Pinus echinata</i> |
| sandgrass | <i>Triplasis spp.</i> | showy orchid | <i>Galearis spectabilis</i> |
| sandhill thistle | <i>Cirsium repandum</i> | showy skullcap | <i>Scutellaria serrata</i> |
| sandmat | <i>Chamaesyce spp.</i> | shrubby cinquefoil | <i>Dasiphora fruticosa</i> |
| sandspurry | <i>Spergularia spp.</i> | Siberian elm | <i>Ulmus pumila</i> |
| sanicle | <i>Sanicula spp.</i> | sidebeak | <i>Stylosanthes biflora</i> |
| sarsaparilla | <i>Smilax aristolochiifolia</i> | pencilflower | |
| sassafras | <i>Sassafras albidum</i> | Siebold's viburnum | <i>Viburnum sieboldii</i> |
| saucer magnolia | <i>Magnolia x soulangiana</i> | silky dogwood | <i>Cornus amomum</i> |
| sawbrier | <i>Smilax glauca</i> | silver maple | <i>Acer saccharinum</i> |
| sawgrass | <i>Cladium spp.</i> | silverleaf linden | <i>Tilia tomentosa</i> |
| sawtooth oak | <i>Quercus acutissima</i> | silverrod | <i>Solidago bicolor</i> |
| scarlet Indian | <i>Castilleja coccinea</i> | silvery sedge | <i>Carex canescens</i> |
| paintbrush | | sixweeks fescue | <i>Vulpia octoflora</i> |
| scarlet oak | <i>Quercus coccinea</i> | skullcap | <i>Scutellaria spp.</i> |
| scarlet pimpernel | <i>Anagallis arvensis</i> | skullcap speedwell | <i>Veronica scutellata</i> |
| Scots pine | <i>Pinus sylvestris</i> | skunk cabbage | <i>Symplocarpus foetidus</i> |
| sea lavender | <i>Limonium spp.</i> | sleepydick | <i>Ornithogalum umbellatum</i> |
| searocket | <i>Cakile spp.</i> | slender blue iris | <i>Iris prismatica</i> |
| seaside brookweed | <i>Samolus valerandi</i> | slender | <i>Veratrum latifolium</i> |
| seaside goldenrod | <i>Solidago sempervirens</i> | bunchflower | |
| seaside spurge | <i>Chamaesyce polygonifolia</i> | slender crabgrass | <i>Digitaria filiformis</i> |
| seaside threeawn | <i>Aristida tuberculosa</i> | slender fimbry | <i>Fimbristylis autumnalis</i> |
| sedge | <i>Carex spp.</i> | slender flatsedge | <i>Cyperus bipartitus</i> |
| seedbox | <i>Ludwigia alternifolia</i> | slender nutrush | <i>Scleria minor</i> |
| seepweed | <i>Suaeda spp.</i> | slender rose gentian | <i>Sabatia campanulata</i> |
| senna | <i>Senna spp.</i> | slender sowthistle | <i>Sonchus tenerrimus</i> |
| sensitive fern | <i>Onoclea sensibilis</i> | slender woodoats | <i>Chasmanthium laxum</i> |
| serviceberry | <i>Amelanchier spp.</i> | slender yellow | <i>Oxalis dillenii</i> |
| sesame | <i>Sesamum orientale</i> | woodsorrel | |
| sessileleaf bellwort | <i>Uvularia sessilifolia</i> | slimleaf panicgrass | <i>Dichantheium linearifolium</i> |
| shagbark hickory | <i>Carya ovata</i> | slimspike threeawn | <i>Aristida longespica</i> |
| shallow sedge | <i>Carex lurida</i> | slippery elm | <i>Ulmus rubra</i> |
| sharpwing | <i>Mimulus alatus</i> | small pondweed | <i>Potamogeton pusillus</i> |
| monkeyflower | | | |
| sheep laurel | <i>Kalmia angustifolia</i> | | |

| Common Name | Scientific Name | Common Name | Scientific Name |
|--------------------------|--------------------------------|---------------------------------|--------------------------------------|
| smallflower | <i>Rosa micrantha</i> | spindletree | <i>Euonymus spp.</i> |
| sweetbrier | | spineless hornwort | <i>Ceratophyllum echinatum</i> |
| smartweed | <i>Polygonum spp.</i> | spiney glasswort | <i>Salicornia depressa</i> |
| smartweed dodder | <i>Cuscuta polygonorum</i> | spinulose woodfern | <i>Dryopteris carthusiana</i> |
| smooth beggartick | <i>Bidens laevis</i> | spirea | <i>Spiraea spp.</i> |
| smooth blue aster | <i>Symphotrichum laeve</i> | spleenwort | <i>Asplenium spp.</i> |
| smooth brome | <i>Bromus inermis</i> | spoonleaf purple | <i>Gamochaeta purpurea</i> |
| smooth | <i>Smilax herbacea</i> | everlasting | <i>Eupatoriadelphus maculatus</i> |
| carrionflower | | spotted Joe Pye weed | <i>Centaurea Potamogeton pulcher</i> |
| smooth cordgrass | <i>Spartina alterniflora</i> | spotted knapweed | <i>Chimaphila maculata</i> |
| smooth crabgrass | <i>Digitaria ischaemum</i> | spotted pondweed | <i>Apocynum androsaemifolium</i> |
| smooth forked nailwort | <i>Paronychia canadensis</i> | spotted wintergreen | <i>Geum vernum</i> |
| smooth sawgrass | <i>Cladium mariscoides</i> | spreading dogbane | <i>Myosotis verna</i> |
| smooth Solomon's seal | <i>Polygonatum biflorum</i> | spring avens | |
| smooth sumac | <i>Rhus glabra</i> | spring forget-me-not | <i>Claytonia spp.</i> |
| smooth ticktrefoil | <i>Desmodium laevigatum</i> | springbeauty | <i>Picea spp.</i> |
| smooth winterberry | <i>Ilex laevigata</i> | spruce | <i>Euphorbia spp.</i> |
| snailseed pondweed | <i>Potamogeton bicupulatus</i> | spurge | <i>Eleocharis quadrangulata</i> |
| snakeroot | <i>Ageratina spp.</i> | squarestem | <i>Carex squarrosa</i> |
| snowberry | <i>Gaultheria spp.</i> | spikerush | <i>Cucurbita spp.</i> |
| snowberry | <i>Symphoricarpos spp.</i> | squarrose sedge | <i>Hypericum hypericoides</i> |
| soft rush | <i>Juncus effusus</i> | squash | <i>Ranunculus bulbosus</i> |
| Solomon's seal | <i>Polygonatum spp.</i> | St. Andrew's cross | <i>Hypericum spp.</i> |
| sorghum | <i>Sorghum bicolor</i> | St. Anthony's turnip | <i>Lyonia spp.</i> |
| southern bog | <i>Lycopodiella appressa</i> | St. Johnswort | <i>Rhus typhina</i> |
| clubmoss | <i>Magnolia grandiflora</i> | staggerbush | <i>Magnolia stellata</i> |
| southern magnolia | <i>Quercus falcata</i> | staghorn sumac | <i>Ornithogalum spp.</i> |
| southern red oak | <i>Viola hirsutula</i> | star magnolia | <i>Cynodon plectostachyus</i> |
| southern woodland violet | | star of Bethlehem | <i>Hypoxis spp.</i> |
| sowthistle | <i>Sonchus spp.</i> | stargrass | <i>Maianthemum stellatum</i> |
| speargrass | <i>Piptochaetium spp.</i> | star-grass | <i>Dichantherium depauperatum</i> |
| speckled alder | <i>Alnus incana</i> | starry false lily of the valley | <i>Stellaria spp.</i> |
| speedwell | <i>Veronica spp.</i> | starved panicgrass | <i>Spiraea tomentosa</i> |
| spiderwort | <i>Tradescantia spp.</i> | starwort | <i>Silene caroliniana</i> |
| spikemoss | <i>Selaginella spp.</i> | steeplebush | |
| spikerush | <i>Eleocharis spp.</i> | sticky catchfly | |

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| stiff cowbane | <i>Oxypolis rigidior</i> | Pye weed | <i>purpureum</i> |
| stiff ticktrefoil | <i>Desmodium obtusum</i> | switchgrass | <i>Panicum virgatum</i> |
| stiff yellow flax | <i>Linum medium</i> | sycamore maple | <i>Acer pseudoplatanus</i> |
| stinging nettle | <i>Urtica dioica</i> | tall blue lettuce | <i>Lactuca biennis</i> |
| stitchwort | <i>Minuartia spp.</i> | tall buttercup | <i>Ranunculus acris</i> |
| stork's bill | <i>Erodium spp.</i> | tall fescue | <i>Schedonorus phoenix</i> |
| strawberry | <i>Fragaria spp.</i> | tall lespedeza | <i>Lespedeza stuevei</i> |
| strawcolored flatsedge | <i>Cyperus strigosus</i> | tall meadow-rue | <i>Thalictrum pubescens</i> |
| striped maple | <i>Acer pensylvanicum</i> | tall morning-glory | <i>Ipomoea purpurea</i> |
| sugar maple | <i>Acer saccharum</i> | tall oatgrass | <i>Arrhenatherum elatius</i> |
| sumac | <i>Rhus spp.</i> | tall rattlesnakeroot | <i>Prenanthes altissima</i> |
| summer grape | <i>Vitis aestivalis</i> | tall thimbleweed | <i>Anemone virginiana</i> |
| sunflower | <i>Helianthus spp.</i> | tall thistle | <i>Cirsium altissimum</i> |
| swamp azalea | <i>Rhododendron viscosum</i> | tamarack | <i>Larix laricina</i> |
| swamp cottonwood | <i>Populus heterophylla</i> | tapered rosette grass | <i>Dichanthelium acuminatum</i> |
| swamp doghobble | <i>Eubotrys racemosa</i> | taperleaf water horehound | <i>Lycopus rubellus</i> |
| swamp loosestrife | <i>Decodon verticillatus</i> | tapertip rush | <i>Juncus acuminatus</i> |
| swamp lousewort | <i>Pedicularis lanceolata</i> | Tatarian honeysuckle | <i>Lonicera tatarica</i> |
| swamp milkweed | <i>Asclepias incarnata</i> | tawny cottongrass | <i>Eriophorum virginicum</i> |
| swamp sunflower | <i>Helianthus angustifolius</i> | terrestrial water-starwort | <i>Callitriche terrestris</i> |
| swamp verbena | <i>Verbena hastata</i> | thicket sedge | <i>Carex abscondita</i> |
| swamp white oak | <i>Quercus bicolor</i> | Thickseed sunflower | <i>Bidens coronata</i> |
| swamppink | <i>Helonias bullata</i> | thimbleberry | <i>Rubus parviflorus</i> |
| Swan's sedge | <i>Carex swanii</i> | thin paspalum | <i>Paspalum setaceum</i> |
| sweet cherry | <i>Prunus avium</i> | thistle | <i>Cirsium spp.</i> |
| sweet fern | <i>Comptonia peregrina</i> | thoroughwort | <i>Eupatorium spp.</i> |
| sweet mock orange | <i>Philadelphus coronarius</i> | threadleaf crowfoot | <i>Ranunculus trichophyllus</i> |
| sweet pepperbush | <i>Clethra alnifolia</i> | threadleaf false foxglove | <i>Agalinis setacea</i> |
| sweet vernalgrass | <i>Anthoxanthum odoratum</i> | threeawn | <i>Aristida spp.</i> |
| sweet woodreed | <i>Cinna arundinacea</i> | threebirds | <i>Triphora trianthophora</i> |
| sweetbay | <i>Magnolia virginiana</i> | threeleaf goldthread | <i>Coptis trifolia</i> |
| sweetflag | <i>Acorus americanus</i> | threelobe | <i>Bidens tripartita</i> |
| sweetgrass | <i>Hierochloe odorata</i> | beggarticks | |
| sweetgum | <i>Liquidambar styraciflua</i> | | |
| sweetroot | <i>Osmorhiza spp.</i> | | |
| sweetscented Joe | <i>Eupatorium</i> | | |

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| threepetal bedstraw | <i>Galium trifidum</i> | umbrella flatsedge | <i>Cyperus diandrus</i> |
| threeseed mercury | <i>Acalypha spp.</i> | umbrella-sedge | <i>Fuirena spp.</i> |
| threeway sedge | <i>Dulichium</i> | upland bentgrass | <i>Agrostis perennans</i> |
| | <i>arundinaceum</i> | valdivia duckweed | <i>Lemna valdiviana</i> |
| thymeleaf pinweed | <i>Lechea minor</i> | variable panicgrass | <i>Dichanthelium</i> |
| thymeleaf speedwell | <i>Veronica</i> | | <i>commutatum</i> |
| | <i>serpyllifolia</i> | velvet panicum | <i>Dichanthelium</i> |
| ticktrefoil | <i>Desmodium spp.</i> | | <i>scoparium</i> |
| tidalmarsh | <i>Amaranthus</i> | velvet sedge | <i>Carex vestita</i> |
| amaranth | <i>cannabinus</i> | velvetgrass | <i>Holcus spp.</i> |
| timothy | <i>Phleum pratense</i> | vernal | <i>Callitriche palustris</i> |
| tiny vetch | <i>Vicia hirsuta</i> | water-starwort | |
| tipularia | <i>Tipularia spp.</i> | veronicastrum | <i>Veronicastrum spp.</i> |
| toad rush | <i>Juncus bufonius</i> | vervain | <i>Verbena spp.</i> |
| toadflax | <i>Nuttallanthus spp.</i> | vetch | <i>Vicia spp.</i> |
| toothed whitetop | <i>Sericocarpus</i> | viburnum | <i>Viburnum spp.</i> |
| aster | <i>asteroides</i> | violet | <i>Viola spp.</i> |
| Torrey's | <i>Pycnanthemum</i> | violet lespedeza | <i>Lespedeza violacea</i> |
| mountainmint | <i>torrei</i> | violet woodsorrel | <i>Oxalis violacea</i> |
| touch-me-not | <i>Impatiens spp.</i> | viper's bugloss | <i>Echium spp.</i> |
| trailing arbutus | <i>Epigaea repens</i> | Virginia | <i>Veratrum</i> |
| tree of heaven | <i>Ailanthus altissima</i> | bunchflower | <i>virginicum</i> |
| tridens | <i>Tridens spp.</i> | Virginia chainfern | <i>Woodwardia</i> |
| trident maple | <i>Acer buergerianum</i> | | <i>virginica</i> |
| trillium | <i>Trillium spp.</i> | Virginia creeper | <i>Parthenocissus</i> |
| true forget-me-not | <i>Myosotis</i> | | <i>quinquefolia</i> |
| | <i>scorpioides</i> | Virginia | <i>Krigia virginica</i> |
| trumpet creeper | <i>Campsis radicans</i> | dwarfdandelion | |
| trumpet | <i>Lonicera</i> | Virginia | <i>Physalis virginiana</i> |
| honeysuckle | <i>sempervirens</i> | groundcherry | |
| trumpetweed | <i>Eupatoriadelphus</i> | Virginia iris | <i>Iris virginica</i> |
| | <i>fistulosus</i> | Virginia knotweed | <i>Polygonum</i> |
| tuberous grasspink | <i>Calopogon</i> | | <i>virginianum</i> |
| | <i>tuberosus</i> | Virginia pine | <i>Pinus virginiana</i> |
| tufted hairgrass | <i>Deschampsia</i> | Virginia rose | <i>Rosa virginiana</i> |
| | <i>cespitosa</i> | Virginia snakeroot | <i>Aristolochia</i> |
| tufted loosestrife | <i>Lysimachia</i> | | <i>serpentaria</i> |
| | <i>thyrsiflora</i> | Virginia spiderwort | <i>Tradescantia</i> |
| tufted lovegrass | <i>Eragrostis</i> | | <i>virginiana</i> |
| | <i>pectinacea</i> | Virginia | <i>Claytonia virginica</i> |
| tuliptree | <i>Liriodendron</i> | springbeauty | |
| | <i>tulipifera</i> | Virginia tephrosia | <i>Tephrosia</i> |
| Turkish hazelnut | <i>Corylus colurna</i> | | <i>virginiana</i> |
| turk's-cap lily | <i>Lilium superbum</i> | Virginia water | <i>Lycopus virginicus</i> |
| turtlehead | <i>Chelone spp.</i> | horehound | |
| tussock sedge | <i>Carex stricta</i> | Virginia wildrye | <i>Elymus virginicus</i> |
| twoflower | <i>Krigia biflora</i> | wallrocket | <i>Diplotaxis spp.</i> |
| dwarfdandelion | | walnut | <i>Juglans spp.</i> |

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| warm season grass | <i>Panicum</i> | white fringed orchid | <i>Platanthera</i> |
| warty panicgrass | <i>verrucosum</i> | white heath aster | <i>blephariglottis</i> |
| water hyacinth | <i>Eichhornia</i> | white meadowsweet | <i>Symphyotrichum</i> |
| water knotweed | <i>crassipes</i> | white mulberry | <i>ericoides</i> |
| water mannagrass | <i>Polygonum</i> | white oak | <i>Spiraea alba</i> |
| water sedge | <i>amphibium</i> | white panicle aster | <i>Morus alba</i> |
| water speedwell | <i>Glyceria fluitans</i> | | <i>Quercus alba</i> |
| | <i>Carex aquatilis</i> | | <i>Symphyotrichum</i> |
| watercress | <i>Veronica</i> | white poplar | <i>lanceolatum</i> |
| | <i>anagallis-aquatica</i> | white snakeroot | <i>Populus alba</i> |
| waterhorehound | <i>Nasturtium</i> | white turtlehead | <i>Ageratina altissima</i> |
| waterlily | <i>officinale</i> | white vervain | <i>Chelone glabra</i> |
| watermelon | <i>Lycopus spp.</i> | white wallrocket | <i>Verbena urticifolia</i> |
| watermoss | <i>Nymphaea spp.</i> | white willow | <i>Diptotaxis eruroides</i> |
| waterplantain | <i>Citrullus lanatus</i> | white wood aster | <i>Salix alba</i> |
| spearwort | <i>Salvinia spp.</i> | whitegrass | <i>Eurybia divaricata</i> |
| water-starwort | <i>Ranunculus</i> | whitemouth | <i>Leersia virginica</i> |
| waterthread | <i>ambigens</i> | dayflower | <i>Commelina erecta</i> |
| pondweed | <i>Callitriche spp.</i> | whitetinge sedge | <i>Carex albicans</i> |
| wavy hairgrass | <i>Potamogeton</i> | whitetop | <i>Cardaria draba</i> |
| | <i>diversifolius</i> | whitetop | <i>Doellingeria spp.</i> |
| | <i>Deschampsia</i> | whitetop aster | <i>Sericocarpus spp.</i> |
| | <i>flexuosa</i> | whorled milkweed | <i>Asclepias</i> |
| waxflower shinleaf | <i>Pyrola elliptica</i> | | <i>verticillata</i> |
| waxweed | <i>Cuphea spp.</i> | whorled | <i>Pycnanthemum</i> |
| waxy leaf | <i>Thalictrum</i> | mountainmint | <i>verticillatum</i> |
| meadow-rue | <i>revolutum</i> | whorled wood aster | <i>Oclemena</i> |
| wayfaringtree | <i>Viburnum lantana</i> | | <i>acuminata</i> |
| weak stellate sedge | <i>Carex seorsa</i> | widelip orchid | <i>Liparis spp.</i> |
| weeping alkaligrass | <i>Puccinellia distans</i> | wild bergamot | <i>Monarda fistulosa</i> |
| weeping Higan | <i>Prunus subhirtella</i> | wild carrot | <i>Daucus spp.</i> |
| cherry | | wild chervil | <i>Anthriscus</i> |
| weeping willow | <i>Salix × sepulcralis</i> | | <i>sylvestris</i> |
| western | <i>Pteridium</i> | wild comfrey | <i>Cynoglossum</i> |
| brackenfern | <i>aquilinum</i> | | <i>virginianum</i> |
| western vervain | <i>Verbena</i> | wild cucumber | <i>Echinocystis lobata</i> |
| | <i>lasiolepis</i> | wild garlic | <i>Allium vineale</i> |
| western waterweed | <i>Elodea nuttallii</i> | wild geranium | <i>Geranium</i> |
| wheat | <i>Triticum spp.</i> | | <i>maculatum</i> |
| wheatgrass | <i>Thinopyrum spp.</i> | wild indigo | <i>Baptisia spp.</i> |
| whip nutrush | <i>Scleria triglomerata</i> | wild parsnip | <i>Pastinaca sativa</i> |
| white ash | <i>Fraxinus americana</i> | wild radish | <i>Raphanus</i> |
| white avens | <i>Geum canadense</i> | | <i>raphanistrum</i> |
| white baneberry | <i>Actaea pachypoda</i> | wild strawberry | <i>Fragaria virginiana</i> |
| white clover | <i>Trifolium repens</i> | wild yam | <i>Dioscorea villosa</i> |
| white colicroot | <i>Aletris farinosa</i> | wildrice | <i>Zizania spp.</i> |
| white fire | <i>Abies concolor</i> | wildrye | <i>Elymus spp.</i> |

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|---------------------|-----------------------------|------------------|----------------------------|
| willow | <i>Salix spp.</i> | yellow pond-lily | <i>Nuphar lutea</i> |
| willow dock | <i>Rumex salicifolius</i> | yellow thistle | <i>Cirsium horridulum</i> |
| willow oak | <i>Quercus phellos</i> | yellow water | <i>Ranunculus</i> |
| willowherb | <i>Epilobium spp.</i> | buttercup | <i>flabellaris</i> |
| wineberry | <i>Rubus</i> | yellowseed false | <i>Lindernia dubia</i> |
| | <i>phoenicolasius</i> | pimpernel | |
| winged sumac | <i>Rhus copallinum</i> | Yellowwood | <i>Cladrastis kentukea</i> |
| wingstem | <i>Verbesina</i> | Yew | <i>Taxus spp.</i> |
| | <i>alternifolia</i> | yoshino cherry | <i>Prunus × yedoensis</i> |
| winter bentgrass | <i>Agrostis hyemalis</i> | Yucca | <i>Yucca spp.</i> |
| winter creeper | <i>Euonymus fortunei</i> | | |
| Wintergreen | <i>Pyrola spp.</i> | | |
| Wisteria | <i>Wisteria spp.</i> | | |
| Witchgrass | <i>Panicum capillare</i> | | |
| Witchhazel | <i>Hamamelis spp.</i> | | |
| woman's tobacco | <i>Antennaria</i> | | |
| | <i>plantaginifolia</i> | | |
| wood anemone | <i>Anemone</i> | | |
| | <i>quinquefolia</i> | | |
| wood lily | <i>Lilium</i> | | |
| | <i>philadelphicum</i> | | |
| Woodfern | <i>Dryopteris spp.</i> | | |
| woodland bulrush | <i>Scirpus expansus</i> | | |
| woodland muhly | <i>Muhlenbergia</i> | | |
| | <i>sylvatica</i> | | |
| woodland | <i>Fragaria vesca</i> | | |
| strawberry | | | |
| woodland sunflower | <i>Helianthus</i> | | |
| | <i>divaricatus</i> | | |
| Woodoats | <i>Chasmanthium spp.</i> | | |
| Woodreed | <i>Cinna spp.</i> | | |
| Woodsorrel | <i>Oxalis spp.</i> | | |
| Woolgrass | <i>Scirpus cyperinus</i> | | |
| woolly | <i>Hudsonia</i> | | |
| beachheather | <i>tomentosa</i> | | |
| Yam | <i>Dioscorea spp.</i> | | |
| Yarrow | <i>Achillea spp.</i> | | |
| yellow birch | <i>Betula</i> | | |
| | <i>alleghaniensis</i> | | |
| yellow flatsedge | <i>Cyperus flavescens</i> | | |
| yellow fringed | <i>Platanthera ciliaris</i> | | |
| orchid | | | |
| yellow giant hyssop | <i>Agastache</i> | | |
| | <i>nepetoides</i> | | |
| yellow loosestrife | <i>Lysimachia spp.</i> | | |
| yellow marsh | <i>Caltha palustris</i> | | |
| marigold | | | |
| yellow nutsedge | <i>Cyperus esculentus</i> | | |